

Originalarbeiten

Benninger DH, Michel J, Waldvogel D, Candia V, Poryazova R, van Hedel HJ, Bassetti CL. REM sleep behavior disorder is not linked to postural instability and gait dysfunction in Parkinson. *Mov Disord.* 2010 Aug 15;25(11):1597-604.

Biering-Sorensen F, Alexander MS, Burns S, Charlifue S, Devivo M, Dietz V, Krassjoukoy A, Marino R, Noonan V, Post MW, Stripling T, Vogel L, Wing P. Recommendations for translation and reliability testing of international spinal cord injury data sets. *Spinal Cord* 2010 Nov 9. [Epub ahead of print]

Bolliger M, Trepp A, Zörner B, Dietz V. Modulation of spinal reflex by assisted locomotion in humans with chronic complete spinal cord injury. *Clin Neurophysiol.* 2010 Dec;121(12):2152-8. Epub 2010 Jun 15.

Bolton JE, Humphreys BK, van Hedel HJ. Validity of weekly recall ratings of average pain intensity in neck pain patients. *J Manipulative Physiol Ther.* 2010 Oct;33(8):612-7.

Borgeat A, Aguirre J, Curt A. Case scenario: neurologic complication after continuous interscalene block. *Anesthesiology.* 2010 Mar;112(3):742-5.

Brütsch K, Schuler T, Koenig A, Zimmerli L, -Koenke SM, Lünenburger L, Riener R, Jäncke L, Meyer-Heim A. Influence of virtual reality soccer game on walking performance in robotic assisted gait training for children. *J Neuroeng Rehabil.* 2010 Apr 22;7:15.

Curt A, Yengue CN, Hilti LM, Brugger P. Supernumerary phantom limbs in spinal cord injury. *Spinal Cord.* 2010 Nov 16. [Epub ahead of print]

Dietz V. Hintergrund: Central Pattern Generator - Hypothesen und Evidenz. *Neuroreha.* 2010 March;1:28-32.

Dietz V. Recent advances in spinal cord neurology. *J Neurol.* 2010 Oct;257(10):1770-3. Epub 2010 Aug 18.

Duschau-Wicke A, Caprez A, Riener R. Patient-cooperative control increases active participation of individuals with SCI during robot-aided gait training. *J Neuroeng Rehabil.* 2010 Sep 10;7:43.

Duschau-Wicke A, Morger A, Vallery H, Riener R. Adaptive Patient Support for Rehabilitation Robots, AT – Automatisierungstechnik. 2010 58:05, 260-268.

Duschau-Wicke A, von Zitzewitz J, Caprez A, Lunenburger L, Riener R. Path control: a method for patient-cooperative robot-aided gait rehabilitation. *IEEE Trans Neural Syst Rehabil Eng.* 2010 Feb;18(1):38-48.

Ellaway PH, Kuppaswamy A, Balasubramaniam AV, Maksimovic R, Gall A, Craggs MD, Mathias CJ, Bacon M, Prochazka A, Kowalczewski J, Conway BA, Galen S, Catton CJ, Allan DB, Curt A, Wirth B, van Hedel HJ. Development of quantitative and sensitive assessments of physiological and functional outcome during recovery from spinal cord injury: A Clinical Initiative. *Brain Res Bull.* 2010 Aug 20. [Epub ahead of print]

Gonzenbach RR, Gasser P, Zörner B, Hochreutener E, Dietz V, Schwab ME. Nogo-A antibodies and training reduce muscle spasms in spinal cord-injured rats. *Ann Neurol.* 2010 Jul;68(1):48-57.

Haefeli J, Vögeli S, Michel J, Dietz V. Preparation and performance of obstacle steps: interaction between brain and spinal neuronal activity. *Eur J Neurosci.* 2011 Jan;33(2):338-48. Epub 2010 Nov 11.

Hubli M, Bolliger M, Dietz V. Neuronal dysfunction in chronic spinal cord injury. *Spinal Cord.* 2010 Nov 9. [Epub ahead of print]

Koritnik T, Koenig A, Bajd T, Riener R, Murih M. Comparison of visual and haptic feedback during training of lower extremities. *Gait Posture.* 2010 Oct;32(4):540-6. Epub 2010 Aug 19.

- Krumm D, Simnacher M, Rauter G, Brunschweiler A, Odenwald S, Riener R, Wolf P. High-fidelity device for online recording of foot-stretcher forces during rowing. *Procedia Engineering*. 2010. Volume 2, Issue 2, 2721-2726.
- Labruyère R, Agarwala A, Curt A. Rehabilitation in spine and spinal cord trauma. *Spine (Phila Pa 1976)*. 2010 Oct 1;35(21 Suppl):259-62.
- Mehnert U, Birzele J, Reuter K, Schurch B. The effect of botulinum toxin type a on overactive bladder symptoms in patients with multiple sclerosis: a pilot study. *J Urol*. 2010 Sep;184(3):1011-6.
- Mehnert U, Michels L, Zempleni MZ, Schurch B, Kollias S. The supraspinal neural correlate of bladder cold sensation-An fMRI study. *Hum Brain Mapp*. 2010 May 24. [Epub ahead of print]
- Michel J, Grobet C, Dietz V, van Hedel HJ. Obstacle stepping in children: task acquisition and performance. *Gait Posture*. 2010 Mar;31(3):341-6. Epub 2010 Jan 6.
- Pouw MH, van Middendorp JJ, van Kampen A, Hirschfeld S, Veth RP; EM-SCI study group, Curt A, Hosman AJ, van de Meent H. Diagnostic criteria of traumatic central cord syndrome. Part 1: a systematic review of clinical descriptors and scores. *Spinal Cord*. 2010 Sep;48(9):652-6. Epub 2010 Jan 5.
- Riener R, Klamroth-Marganska V. Robot-assisted therapy for neurological rehabilitation of the upper limb following stroke. *Neurol Rehabil* 2010;16(1):8-14.
- Riener R, Lünenburger L, Maier I C, Colombo G, Dietz V. Locomotor Training in Subjects with Sensori-Motor Deficits: An Overview of the Robotic Gait Orthosis Lokomat. *Journal of Healthcare Engineering*. 2010 June;1(2):197-216.
- Riener R, Munich M. Special section on rehabilitation via bio-cooperative control. *IEEE Trans Neural Syst Rehabil Eng*. 2010 Aug;18(4):337-8.
- Schauer T, Schmidt H, Riener R. Automatisierungstechnische Verfahren für die Medizin. at – Automatisierungstechnik. 2010;58(5):239-40.
- Schiffers M, Sauermann P, Schurch B, Mehnert U. The effect of tolterodine 4 and 8 mg on the heart rate variability in healthy subjects. *World J Urol*. 2010 Oct;28(5):651-6. Epub 2010 Feb 7.
- Schmartz AC, Meyer-Heim AD, Müller R, Bolliger M. Measurement of muscle stiffness using robotic assisted gait orthosis in children with cerebral palsy: a proof of concept. *Disabil Rehabil Assist Technol*. 2011;6(1):29-37. Epub 2010 Aug 7.
- Spreyermann R, Lüthi H, Michel F, Baumberger ME, Wirz M, Mäder M. Long-term follow-up of patients with spinal cord injury with a new ICF-based tool. *Spinal Cord*. 2011 Feb;49(2):230-5. Epub 2010 Aug 17.
- Steeves JD, Kramer JK, Fawcett JW, Cragg J, Lammertse DP, Blight AR, Marino RJ, Ditunno JF Jr, Coleman WP, Geisler FH, Guest J, Jones L, Burns S, Schubert M, van Hedel HJ, Curt A. Extent of spontaneous motor recovery after traumatic cervical sensorimotor complete spinal cord injury. *Spinal Cord*. 2011 Feb;49(2):257-65. Epub 2010 Aug 17.
- Stokic DS, Curt A. Re: Stem cells in the treatment of chronic spinal cord injury: evaluation of somatosensitive-evoked potentials in 39 patients. *Spinal Cord*. 2010 Aug;48(8):649; author reply 650. Epub 2010 Jan 19.
- Van De Meent H, Hosman AJ, Hendriks J, Zwarts M; EM-SCI Study Group, Schubert M. Severe degeneration of peripheral motor axons after spinal cord injury: a European multicenter study in 345 patients. *Neurorehabil Neural Repair*. 2010 Sep;24(7):657-65. Epub 2010 May 3.
- Van Hedel HJ, Dietz V. Rehabilitation of locomotion after spinal cord injury. *Restor Neurol Neurosci*. 2010;28(1):123-34.
- Van Hedel HJ, Rudhe C. [Motor recovery after spinal cord injury: assessments, factors and mechanisms] *Praxis (Bern 1994)*. 2010 Aug 11;99(16):963-70.
- Van Hedel HJ, Wirth B, Curt A. Ankle motor skill is intact in spinal cord injury, unlike stroke: implications for rehabilitation. *Neurology*. 2010 Apr 20;74(16):1271-8.

Van Middendorp JJ, Pouw MH, Hayes KC, Williams R, Chhabra HS, Putz C, Veth RP, Geurts AC, Aito S, Kriz J, McKinley W, van Asbeck FW, Curt A, Fehlings MG, Van de Meent H, Hosman AJ; EM-SCI Study Group Collaborators. Diagnostic criteria of traumatic central cord syndrome. Part 2: a questionnaire survey among spine specialists. *Spinal Cord*. 2010 Sep;48(9):657-63. Epub 2010 Jun 29.

Villiger M, Chandrasekharan S, Welsh TN. Activity of human motor system during action observation is modulated by object presence. *Exp Brain Res*. 2011 Mar;209(1):85-93. Epub 2010 Dec 28.

Wellner M, Sigrist R, Riener R. Virtual Competitors Influence Rowers. *Presence*. 2010 Aug;19(4):313-330.

Wellner M, Sigrist R, Zitzewitz J von, Wolf P, Riener R. Does a virtual audience influence rowing? *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*. 2010; 224(1):117-28.

Wieser M, Haefeli J, Bütler L, Jäncke L, Riener R, Koeneke S. Temporal and spatial patterns of cortical activation during assisted lower limb movement. *Exp Brain Res*. 2010 May;203(1):181-91. Epub 2010 Apr 3.

Yu N, Estévez N, Hepp-Reymond MC, Kollias SS, Riener R. fMRI assessment of upper extremity related brain activation with an MRI-compatible manipulandum. *Int J Comput Assist Radiol Surg*. 2010 Aug 10. [Epub ahead of print]

Yu N, Gassert R, Riener R. Mutual interferences and design principles for mechatronic devices in magnetic resonance imaging. *Int J Comput Assist Radiol Surg*. 2010 Sep 2. [Epub ahead of print]

Zariffa J, Kramer JL, Fawcett JW, Lammertse DP, Blight AR, Guest J, Jones L, Burns S, Schubert M, Bolliger M, Curt A, Steeves JD. Characterization of neurological recovery following traumatic sensorimotor complete thoracic spinal cord injury. *Spinal Cord*. 2010 Oct 12. [Epub ahead of print]

Zörner B, Blanckenhorn WU, Dietz V; EM-SCI Study Group, Curt A. Clinical algorithm for improved prediction of ambulation and patient stratification after incomplete spinal cord injury. *J Neurotrauma*. 2010 Jan;27(1):241-52.

Zörner B, Filli L, Starkey ML, Gonzenbach R, Kasper H, Röthlisberger M, Bolliger M, Schwab ME. Profiling locomotor recovery: comprehensive quantification of impairments after CNS damage in rodents. *Nat Methods*. 2010 Sep;7(9):701-8.

Reviews

Dietz V. Behavior of spinal neurons deprived of supraspinal input. *Nat Rev Neurol*. 2010 Mar;6(3):167-74. Epub 2010 Jan 26.

Kongressbeiträge (Proceedings)

Oess NP, Wanek J, van Hedel HJ. Enhancement of bend sensor properties as applied in a glove for use in neurorehabilitation settings. *Conf Proc IEEE Eng Med Biol Soc*. 2010;1:5903-6.

Rauter G, Zitzewitz J von, Duschau-Wicke A, Vallery H, Riener R. A tendon-based parallel robot applied to motor learning in sports. *Proceedings of the IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob)*, Tokyo, Japan, 2010.

Vallery H, Duschau-Wicke A, Riener R. Hiding robot inertia using resonance. *Conf Proc IEEE Eng Med Biol Soc*. 2010;1:1271-4.

Wieser M, Buetler L, Koenig A, Riener R. Quantitative description of the state of awareness of patients in vegetative and minimally conscious state. *Conf Proc IEEE Eng Med Biol Soc*. 2010;1:5533-6.

Wieser M, Lange V de, Rodriguez del Rio R, Vallery H, Riener R. Control of Respiration via Posture and Movement: A Feasibility Study. *AutoMed* 2010.

Buchbeiträge

Dietz V. Human Locomotion. The Corsini Encyclopedia of Psychology 4th Edition, Vol. 2 (D-L), 784-785.

Dietz V. Organization of Human Locomotion: Proprioception and Quadrupedal Coordination. Encyclopedia of Behavioral Neuroscience 2010, Vol 2, 490-496.

Nelles G, Curt A, Querschnittsyndrome, In: Neurologische Differenzialdiagnostik, Bewermeyer/Fink/Limmroth, Schattauer Verlag, 323-341.