November 2020

SPINAL CORD INJURY SPECIAL INTEREST GROUP

Academy of Neurologic Physical Therapy

NEWSLETTER

In this newsletter…

SCI SIG AWARD FOR CLINICAL EXCELLENCE IN SCI CARE OR SERVICE WINNER

Lawrence Harding

Lawrence Harding has worked in the field of physical therapy for over 20 years and is a leading expert in the care of people with spinal cord injury. He started, and is currently the director of, The Axis Project which allows clients with SCI who have insurance limitations or other psychosocial barriers the opportunity to participate in functional training, group exercise classes and build social connections. He is a member of Wheeling Forward and participated heavily in the creation of The Spinal Mobility Program. He is an educator in the field of SCI and continues to teach at Hunter College. His nominator writes, Lawrence demonstrates outstanding clinical care, a passion for working with persons with spinal cord injury in addition to teaching and inspiring others to do the same.

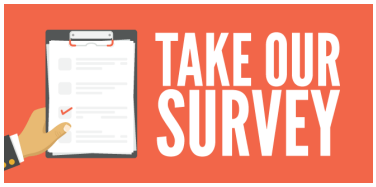
On behalf of the ANPT SCI SIG, thank you for your dedication and outstanding work.

Congratulations!

SCI SIG MEMBERSHIP SURVEY

PLEASE TAKE A MOMENT TO FILL OUT OUR SCI SIG MEMBERSHIP SURVEY

https://forms.gle/XRKUJigEkRy6stUPA



SCI SIG NOMINATIONS

TIMELINE:

- Nominations are due **March 29, 2021**.
- Elections will be held April 5 - May 5, 2021
- Three year term begins July 1, 2021

IMPORTANT INFOMRATION:

- There is no longer a requirement for individuals to be an ANPT member for 2 years!
    - Membership requirements- member in good standing with a grace period of up to 3 months for any lapses in membership
- Website with position information (do not need to be logged in to view): https://neuropt.org/join/volunteer-with-the-section/election-information
- Nomination form: **https://neuropt.org/members/nomination (remember must be logged on to access this page)**

SCI SIG RESEARCH IN REVIEW

PLEASE SEE THIS MONTH'S RESEARCH ARTICLES BELOW

- Hu, X.-C., Lu, Y.-B., Yang, Y.-N., Kang, X.-W., Wang, Y.-G., Ma, B., & Xing, S. (January 01, 2021). Progress in clinical trials of cell transplantation for the treatment of spinal cord injury: how many questions remain unanswered? Neural Regeneration Research, 16, 3, 405.

ABSTRACT EXCERPT: Neural stem cells and progenitor cells, bone marrow

mesenchymal stem cells, olfactory ensheathing cells, umbilical cord blood stem cells, adipose stem cells, hematopoietic stem cells, oligodendrocyte precursor cells, macrophages and Schwann cells have been studied as potential treatments for spinal cord injury. ... This review summarizes and analyzes the clinical trials of cell transplantation therapy in spinal cord injury, with the aim of providing a rational foundation for the development of clinical treatments for spinal cord injury.

- Noamani, A., Lemay, J. F., Musselman, K. E., & Rouhani, H. (January 01, 2020). Postural control strategy after incomplete spinal cord injury: effect of sensory inputs on trunk-leg movement coordination. Journal of Neuroengineering and Rehabilitation, 17, 1.)

BACKGROUND: Postural control is affected after incomplete spinal cord injury (iSCI) due to sensory and motor impairments. Any alteration in the availability of sensory information can challenge postural stability in this population and may lead to a variety of adaptive movement coordination patterns. Hence, identifying the underlying impairments and changes to movement coordination patterns is necessary for effective rehabilitation post-iSCI. This study aims to compare the postural control strategy between iSCI and able-bodied populations by quantifying the trunk-leg movement coordination under conditions that affects sensory information.

- Rejc, E., Smith, A. C., Weber, K. A., Ugiliweneza, B., Bert, R. J., Negahdar, M., Boakye, M., Harkema, S., Angeli, C. A. (October 21, 2020). Spinal Cord Imaging Markers and Recovery of Volitional Leg Movement With Spinal Cord Epidural Stimulation in Individuals With Clinically Motor Complete Spinal Cord Injury. Frontiers in Systems Neuroscience, 14.

BACKGROUND: Previous studies have shown that epidural stimulation of the lumbosacral spinal cord (scES) can re-enable lower limb volitional motor control in individuals with chronic, clinically motor complete spinal cord injury (SCI). This observation entails that residual supraspinal connectivity to the lumbosacral spinal circuitry still persisted after SCI, although it was non-detectable when scES was not provided. In the present study, we aimed at exploring further the mechanisms underlying scES-promoted recovery of volitional lower limb motor control by investigating neuroimaging markers at the spinal cord lesion site via magnetic resonance imaging (MRI).

- Rodionov, A., Savolainen, S., Kirveskari, E., Mäkelä, J. P., & Shulga, A. (December 01, 2019).
- Restoration of hand function with long-term paired associative stimulation after chronic incomplete tetraplegia: a case study.
- Spinal Cord Series and Cases, 5, 1, 1-8.

INTRODUCTION: This case study explores the gains in hand function in an individual with a chronic spinal cord injury (SCI). The intervention was long-term paired associative simulation (PAS). We aimed to provide PAS until full recovery of hand muscle strength occurred, or until improvements ceased.

- Smith, A. C., Draganich, C., Albin, S. R., O'Dell, D. R., Berliner, J. C., Dungan D., Sevigny, M., Dungan D., Elliott J.M., Weber II , K.A. (January 01, 2020). Axial MRI biomarkers of spinal cord damage to predict future walking and motor function: a retrospective study. Spinal Cord.

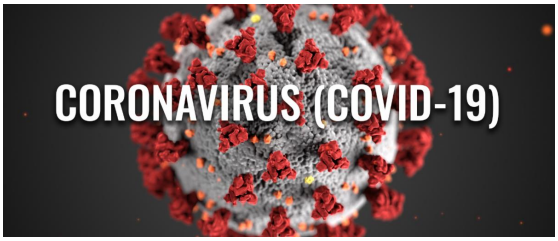
OBJECTIVES: Primary: to assess if axial damage ratios are predictors of future walking after spinal cord injury (SCI), and if they add any predictive value if initial neurological impairment grades are available. Secondary: to determine if lateral spinal cord regions are predictors of future lower extremity motor scores (LEMS).

- Solinsky, R., Mercier, H., Picard, G., & Taylor, J. A. (October 07, 2020). Cardiometabolic effects of high-intensity hybrid functional electrical stimulation exercise after Spinal Cord Injury. PM&R.

PURPOSE: The primary objective of this study was to assess the effects of high-intensity, whole-body, exercise on the prevalence of cardiometabolic disease in a cohort of individuals with SCI. Clinically, now knowing that cardiometabolic disease gains a strong foothold at time of discharge from acute inpatient rehabilitation, 6 this study looks to address the question of how to mitigate this risk.

COVID-19 RESOURCES

CHECK OUT THE RESOURCES BELOW!



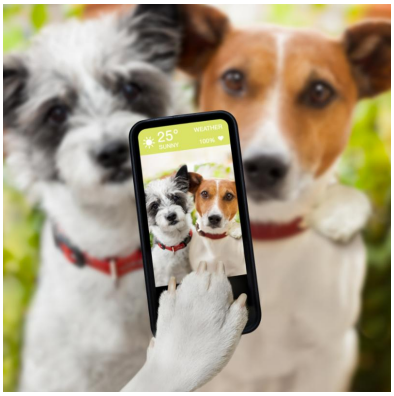
The APTA has a Coronavirus page where they post daily updates and resources.

The APTA Learning Center has created a FREE COVID-19 section with webinars from many APTA sections.

ANPT has created a page of resources to help support your work and mental health.

INTERESTED IN GETTING INVOLVED?

SUBMIT A PHOTO!



We are collecting pictures to post to our Social Media Accounts and website.

Send your pictures, including the names of anyone in the picture and a 1-sentence caption, to our SCI SIG Social Media Coordinator **Kathryn McLeland**.

Neurologic Telehealth Task Force

The ANPT Task Force is looking for members interested in supporting telehealth as a sustainable option for people with neurologic conditions to access PT services. The purpose of the task force is to create resources and tools to optimize the implementation of telehealth neurologic PT practice including mobile based practices. Additionally, the task force will engage in advocacy efforts on a national level to increase awareness of unique opportunities telehealth brings to people living with neurologic health conditions. The time commitment for serving on the task force is 18 months. The task force will be comprised of individuals representing different practice settings and with a variety of experience/familiarity with telehealth for people with neurologic conditions. Listed below are types of individuals who will be considered for the task force:

· Administrators/organizational leaders
· Clinicians
· Program developers
· Entry-level DPT faculty
· DCE's
· Residency directors
· Clinician researchers
· Quality improvement specialists

Patients and patient advocacy groups will also be considered as part of the task force to ensure that the committee represents multiple stakeholder groups from different levels of care.

Responsibilities of the task force include:disclosure of conflict of interest, participation in all conference calls, attending all meetings with a commitment to teamwork and clear communication, reading all relevant material and doing all necessary background work to fully participate, responding to e-mail communications in a timely fashion, completing all personal assignments to meet deadlines, maintaining confidentiality.

If you are interested in serving on this task force, please fill out **this survey** which includes a statement of interest. Please send any questions to Heather Knight at HeatherKnight@creighton.edu. **Your response to this call for volunteers is requested by Friday December 11th.**

UPCOMING CONFERENCES 2021

Combined Section Meeting 2021

Register Now

CSM 2021 will be Feb. 1-28. The conference will be held virtually due to the COVID-19 pandemic.
Registration opened on November 23, 2020

FIRST ACADEMY OF NEUROLOGIC PHYSICAL THERAPY (ANPT) ANNIAL CONFERENCE

More details to come! Check here for the most up to date information!

VISIT THE SCI SIG ONLINE!

ACADEMY OF NEUROLOGIC PHYSICAL THERAPY

ANPT SCI SIG Officers

Casey Kandilakis, PT, DPT, Chair
Cathy Larson, PT, PhD, Vice-Chair
Christi Hutchison, PT, MPT, Secretary
Sara Hobbs, PT, DPT, Nominating Committee Chair
Andrea Stump, PT, DPT, ATP, Nominating Committee
Andrew Smith, PT, DPT, PhD, Nominating Committee
Kathryn McLeland, PT, DPT, Lead Social Media Coordinator
Jane Mongkolvipakul, SPT, Social Media Coordinator

Academy of Neurologic Physical Therapy
info@neuropt.org | www.neuropt.org

ANPT Social Media