# SPECIAL INTEREST GROUP

Academy of Neurologic Physical Therapy

## NEWSLETTER

## In this newsletter...

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- New Research Summary: Ambulation Prediction after SCI
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# Spotlight on CSM 2022

<u>CSM 2022</u> will be held February 2-5, 2022- San Antonio, Texas. Here are some events and SCI-related content to consider as you build your calendar!



(as the schedule is subject to change, please verify online when planning your conference experience)

## **EVENTS**:

<u>ANPT Business Meeting and Myelin Melter</u> Friday, 6:30p-9p (6:30-6:45 pm Business Meeting, 6:45-7:15 pm Awards Ceremony, 7:15-9:00 pm Social), Grand Hyatt - Lone Star Salon DE

#### ANPT Special Interest Group Welcome

Saturday, 6:30-7:30a, Grand Hyatt - Lone Star Salon DEF Corridor

#### EDUCATION SESSION- Thursday, 3p-5p:

For Better or Worse: Is Stretching Beneficial or Detrimental for Function After Spinal Cord Injury? Edelle Carmen Field-Fote, PT, PhD, FAPTA, David Magnuson, PhD and Anastasia Zarkou, PT, PhD

**PLATFORMS**- Saturday 11a-1p: <u>Trunk Strength Is Associated with Maximal Respiratory Pressure Generation in</u> <u>Individuals with Spinal Cord Injury</u> *Gina Brunetti, PT, DPT*, Kelly Ann Hawkins, PT, DPT, PhD, Kathryn L. Cavka, PT, DPT, Hannah Snyder, Tinuade Olarewaju, PT and Emily Jane Fox, PT, DPT, PhD <u>Locomotor Training Using Adaptive Robotics in Adults with Spinal Cord Injury:</u> Preliminary Feasibility and Outcomes

Louis Anthony DeMark, PT, DPT, Jessica Dunn, Meghan Kettles, Hannah Snyder, Gina Brunetti, PT, DPT, Kathryn L. Cavka, PT, DPT, Christy L. Conroy, PT, Clayton Wauneka, PhD, Bob McIver, Geneva Tonuzi and Emily Jane Fox, PT, DPT, PhD

#### POSTERS- 1p-3p:

#### Thursday:

- <u>Ovariectomy Induces Persistent Activation of Spinal Microglia in Female Rats</u>
- **Trey W. Lyngaas, SPT**, Olivia Carolyn Ritchie, SPT, **Wilson Kozel, SPT**, Philip Punnoose, Jessica Grittner, Shawn Miller and Brendan J. Dougherty, PT, PhD
- <u>MiR-338-5p Levels and Cigarette Smoking Are Associated with Neuropathic Pain</u> Severity after Spinal Cord Injury
- Jesse Lin Kowalski, PT, DPT, Nguyen Nguyen, Ricardo Battaglino, Scott Falci, Susan Charlifue and Leslie Morse
- <u>Changes in Capacity and Performance Following High Intensity Locomotor</u> <u>Training in Incomplete Spinal Cord Injury</u>
- Jennifer Hilb Kahn, PT, David Dalzell, SPT, Jacqueline Katz, SPT, Renee Kawecki, SPT, Kristin Lew, SPT, Alyssa Danielle Martinez, SPT, Gabrielle Renee Tanquilut, SPT and Keith E Gordon
- <u>The Use of Blood Flow Restriction Training Following Incomplete Spinal Cord</u> Injury: A Case Report
- Matthew Todd Martin, PT, DPT
- <u>MRI Investigation of Standing Ability with Epidural Stimulation in Individuals with</u>
  Motor Complete SCI
- Andrew Craig Smith, PT, DPT, PhD, Claudia Angeli, Beatrice Ugiliweneza, Kenneth Weber, Robert Bert, Mohammadjavad Negahdar, Samineh Mesbah, Maxwell Boakye, Susan J. Harkema, PhD and Enrico Rejc
- <u>Pain-Related Psychological Factors in Individuals with Violent Vs Nonviolent Spinal</u> <u>Cord Injury Onset</u>
- Margaret Anne Finley, PT, PhD, Laura Baehr, PT, DPT and Paula Richley Geigle, PT, MS, PhD
- <u>Feasibility of Transcutaneous Spinal Direct Current Stimulation Combined with</u> <u>Locomotor Training after Spinal Cord Injury</u>
- Kelly Ann Hawkins, PT, DPT, PhD, Louis Anthony DeMark, PT, DPT, Hannah Snyder, ACSM-EP, Arian Vistamehr, Christy Conroy, PT, Clayton Wauneka, PhD, Geneva Tonuzi, David D Fuller, David Clark and Emily Jane Fox, PT, DPT, PhD
- Effect of Load on Subacromial Space during Arm Elevation in Individuals with Spinal Cord Injury
- Beth Allison Cloud-Biebl, PT, DPT, PhD, Ruth Dolan, SPT, Lexi Jade Klawitter, SPT, Travis Kolbo, SPT, Drew Sathrum, SPT, Meegan Van Straaten, PT, Joseph Mozingo and Kristin Daigle Zhao
- <u>Is Seated Trunk Control Associated with Walking Function in Chronic Incomplete</u> <u>Spinal Cord Injury?</u>
- **Tinuade Olarewaju**, **PT**, Kelly Ann Hawkins, PT, DPT, PhD, Gina Brunetti, PT, DPT, Hannah Snyder and Emily Jane Fox, PT, DPT, PhD
- Effects of Intramuscular Stimulation on Diaphragm Activation and Respiratory Function Following Acute Spinal Cord Injury
- Kathryn L. Cavka, PT, DPT, Alicia K Vose, PhD, CCC-SLP, Clayton Wauneka, PhD, Paul Freeborn, David D Fuller, Amy Redding, Geneva Tonuzi, Brian Yorkgitis, Marie Crandall, Jeanette Zhang and Emily Jane Fox, PT, DPT, PhD
- <u>White Matter Tract Damage Following Spinal Cord Injury: Predictors of Future</u> <u>Motor and Sensory Function</u>

- Andrew Craig Smith, PT, DPT, PhD, Denise Renee O'Dell, PT, DSc, Stephanie Renee Albin, PT, DPT, PhD, Jeffrey C. Berliner, David Dungan, James Matthew Elliott, PT, PhD, FAPTA, Julio Carballido-Gamio, Jennifer Elaine Stevens-Lapsley, PT, MPT, PhD, FAPTA and Kenneth Weber
- <u>Predictors of Functional Mobility in Patients with Spinal Cord Injury. a Literature</u> <u>Review</u>
- Fernando Enrique Gomez, SPT, Michael Patrick Snellen, SPT, Mercedes Lois, SPT and Carla S. Enriquez, PT, DPT, MS, PhD
- <u>Race to Walk: A Qualitative Study of a Community Exercise Program for Individuals</u> with SCI
- Elizabeth Wherley Regan, PT, DPT, PhD, Makayla Jenelle Scott, SPT, Rebekah Erin Forbes, PT, DPT, Courtney Silverman-Moss, PT, DPT, Kaci Handlery, PT, DPT and Stacy Lynne Fritz, PT, PhD

#### Friday:

- <u>Cardiovascular and Body Composition Benefits of Spinal Cord Epidural Stimulation</u> <u>for Chronic SCI: Systematic Review</u>
- Becky Schoeneberg, PT, DPT, Beverly A. McNeal, PT, DPT and Kristin Richardson, PT, DPT
- <u>Management of BPPV in a Patient with Spinal Precautions Following a Non-</u> <u>Traumatic SCI</u>
- Lauren Lea Jeffries, PT, DPT

## **2022 SCI SIG ELECTIONS**

The Nominating Committee is looking for members willing to serve as elected officials for the SCI Special Interest Group. A candidate for an elected leadership position must be an Academy member in good standing, maintaining an active membership status (with a grace period of up to 3 months maximum).

TIMELINE: Nominations are due March 21, 2022. Elections will be held April 4 - May 4, 2022 Three year term begins July 1, 2022



- There are three open positions for this election cycle: Chair-Elect, Vice Chair, and Nominating Committee Member
- More information can be found<u>here</u> (you do not need to be logged in to view):
- The nomination form lives <u>here</u> (must be logged on to access this page)

## Nominations are due March 21, 2022!

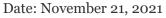
APPLY HERE

# **NEW RESEARCH SUMMARY**

# AMBULATION PREDICTION AFTER SPINAL CORD INJURY: WHAT HAVE WE LEARNED IN THE PAST 10 YEARS?

SCI Current State of the Research Summaries were developed by the SIG to help SCI clinicians understand the current state of research on interventions currently being studied for individuals with SCI. Our newest summary delves into the topic of <u>ambulation prediction after spinal cord injury</u>, to inform physical therapist practice. We hope you enjoy this resource!

Authored by: Wesley Thornton, PT, DPT, NCS; Rachael Fuller, BA; Sara Hobbs, PT, DPT, NCS; Jeffrey Berliner, DO; Candace Tefertiller, PT, DPT, NCS, PhD; Andrew C. Smith, PT, DPT, PhD.



# SCI SIG CALENDAR

## SCI SIG CALENDAR

Check out the SIG's new calendar of SCI-related events and activities **here**! If you have any suggestions for additions to the calendar, or any comments or questions on events, please contact us at: **anptscisig@gmail.com** 



## SCI EXPERIENCED CLINICAN LIST



IF YOU WOULD LIKE YOUR NAME/CONTACT INFO ADDED TO THE LIST

> PLEASE CONTACT SARA HOBBS AT SHOBBS@SRALAB.ORG

> > Visit List

SCI SIG RESEARCH IN REVIEW



PLEASE SEE THIS MONTH'S RESEARCH ARTICLES BELOW



Transcutaneous Electrical Spinal Cord Stimulation to Promote Recovery in Chronic Spinal Cord Injury.

o https://doi.org/10.3389/fresc.2021.740307

o Tefertiller C, Rozwod M, VandeGriend E, Bartelt P, Sevigny M, Smith AC. Frontiers Rehab Sci.

 Abstract Excerpt: Individuals with chronic SCI who had previously demonstrated a plateau in function after an intensive outpatient therapy program were able to improve in a variety of UE and LE outcomes in response to TSCS without any adverse events. This was a small pilot study and future fully powered studies with comparative interventions need to be completed to assess efficacy.

Benefits and interval training in individuals with spinal cord injury: A thematic review.

o https://pubmed.ncbi.nlm.nih.gov/34855568/

- o Dolbow DR, Davis GM, Welsch M, Gorgey AS. J Spinal Cord Med.
- o Abstract excerpt: The available literature lacked sufficient numbers of randomized control trials.

However, the available evidence is encouraging concerning the potential benefits and practicality of using HIIT to improve aerobic and anaerobic capacity and decrease cardiometabolic risk after SCI.

Spinal cord imaging markers and recovery of standing with epidural stimulation in individuals with clinically motor complete spinal cord injury.

o https://pubmed.ncbi.nlm.nih.gov/34854934/

Smith AC, Angeli CA, Ugiliweneza B, Weber KA 2nd, Bert RJ, Negahdar M, Mesbah S, Boakye M,
 Harkema SJ, Rejc E. Exp Brain Res.

 Abstract Excerpt: In this study, MRI measures of spared spinal cord tissue were significantly related to standing outcomes with scES. These preliminary results warrant future investigation of roles of supraspinal input and MRI-detected spared spinal cord tissue on lower limb motor responsiveness to scES.

### Spinal cord medicine today: Meeting the challenges of pandemic-era research and care

o https://pubmed.ncbi.nlm.nih.gov/34913417/

o Murphy C, Thomas F. J Spinal Cord Med.

 Abstract Excerpt: The need to maintain a scholarly perspective remains paramount, as the impact of pandemic disruptions continues to be felt, and care guidelines expand to encompass vaccines and new treatments. There is still much to be learned about ensuring the safety of the population with spinal cord injury and the care and follow up of individuals with COVID-19 infection.

A systematic review of the effects of community transition programs on quality of life and hospital readmissions for adults with traumatic spinal cord injury.

- o https://pubmed.ncbi.nlm.nih.gov/34464608/
- o Tschoepe R, Benfield A, Posey R, Mercer V. Arch Phys Med Rehabil.

 $\circ~$  Abstract Excerpt: When high quality studies have been conducted, they have obtained mixed results.

Of the different intervention types, peer mentorship has the strongest supporting evidence.

## **ANPT CONFERENCE 2022**

The <u>2022 Academy of Neurologic Physical</u> <u>Therapy Annual Conference</u> will focus on evidence-based practices and implementation, with an emphasis on patients' and caregivers' perspectives.



Registration opens 6/27/22.

## **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**.



## **ANPT SCI SIG Officers**

Casey Kandilakis, PT, DPT, Chair Christi Hutchison, PT, MPT, Vice Chair Sara Hobbs, PT, DPT, Secretary Andrea Stump, PT, DPT, ATP, Nominating Committee Chair Andrew Smith, PT, DPT, PhD, Nominating Committee Kristen Cezat, PT, DPT, Nominating Committee Kathryn McLeland, PT, DPT, Lead Social Media Coordinator Jane Mongkolvipakul, PT, DPT, Social Media Coordinator Lane Madison, Student Physical Therapist, Student Social Media Coordinator



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**ANPT Social Media** 

