RESEARCH THIS MONTH:

Clinical assessment of the impact of pelvic pain on women.

Does expecting more pain make it more intense? Factors associated with the first week pain trajectories after breast cancer surgery.

Brain changes associated with cognitive and emotional factors in chronic pain: A systematic review.

Psychological Factors Associated With Chronic Migraine and Severe Migraine-Related Disability: An Observational Study in a Tertiary Headache Center.


Increasing Recreational Physical Activity in Patients With Chronic Low Back Pain: A Pragmatic Controlled Clinical Trial.

Valence and Arousal Value of Visual Stimuli and Their Role in the Mitigation of Chronic Pain: What Is the Power of Pictures?

The reciprocal associations between catastrophizing and pain outcomes in patients being treated for neuropathic pain: a cross-lagged panel analysis study.


If you don’t know who Professor Paul Hodges is, where have you been the last 25 years? We are super excited to have Paul Hodges present at this year’s ISPI conference, all the way from Queensland Australia. Paul Hodges is well-known for his work on motor control. In the last few years, Paul’s work has evolved from “pure” motor control towards the realm of movement, motor control and neuroplasticity. Paul will open the ISPI conference Friday evening with his keynote address on pain, motor control and neuroplasticity, be on the keynote panel Saturday afternoon and also conduct a 4h lab session on this topic Friday afternoon and repeat Sunday morning for those who could not attend the Friday session. Paul’s 4h lab session will delve into the complexity of pain, movement, motor control and neuroplasticity. There have been huge advances in understanding motor control and pain and this session will dive into the understanding and application of where the research is leading us in regards to pain and motor control. The course will explore how each individual chooses different protective responses (motor control) in response to pain and understand more deeply that there are lots of different ways to achieve the same goal. A person’s ability to adapt through neural and motor responses depends on the availability of solutions their brain can derive from the learned behavior they have developed over time. The session will help the clinician consider clinically on developing a treatment approaches that might contain multiple options and variability and how the patient responds to each. Gaining a greater appreciation that every individual is unique, but utilizing general principles can be used to guide us. The session will help the clinician more deeply understand current theory on how motor control adapts to pain and the neuroplastic changes involved. The concepts of how a person will search to adapt to physical and emotional demands placed on them and how this adaption can be used for pain reduction or allowing increased magnitude of force delivered on the environment. These adaptions may have short-term benefits, but can lead to long term entrenched problems. Evidence has shown that performance and variability have an inverse curve relation (too little variability, performance suffers and with too much variability, performance also suffers). Current evidence shows that an optimum balance of variability seems to be the key to maximize performance of an individual and achieving this balance is key in recovery. By putting into practice the conceptual model showing that sub-optimal loading will lead to injury and that injury will lead to a back and forth relationship with pain. Fully appreciating that pain will also lead to protective motor responses, as well as interference and inaccuracy with function. Yet potentially even more important, pain and conditioned responses also have a back and forth relationship through neuroplastic learned responses. Movement and pain are intricately linked together and learning how to unravel this mystery is key in the outcomes of those in pain. This is not just another “motor control” session, nor it is just another “pain” session, this is “the” session you need to be at…
Every summer I feel like a kid in a candy store. This coming June will be no exception – when we host our annual pain conference in Minneapolis. This is the 7th year of the annual ISPI pain conference and on June 9, 10 and 11 we will gather some of the brightest minds associated with Pain and Neuroplasticity. From my perspective, the most exciting developments in pain are occurring in this field. We are slowly getting a handle on the various clinical tests to establish altered neuroplasticity in our patients, as well as easy, immediate clinical applications including left/right discrimination, motor imagery, sensory discrimination, mirror therapy, virtual reality, pain neuroscience education and more. This year’s conference will feature a series of international and national experts on neuroplasticity, various panels on the clinical application of tests and treatments, 4-hour lab sessions for hands-on training and various social events including the welcoming reception sponsored by OPTP. In this edition of the ISPI newsletter, we will feature 2 of our keynote speakers from Australia - Paul Hodges, PT, PhD and Siobhan Schabrun, PT, PhD.

**CONFERENCE FOCUS**

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**SIOBHAN SCHABRUN, PT, PHD:**
**USING NEUROPLASTICITY TO GUIDE THE TREATMENT OF PAIN**

In the last 10 years we have increasingly become aware of the various functional and structural changes in the human brain when it comes to persistent pain. With altered neuroplasticity, the central nervous system becomes hypervigilant, resulting in a clinical presentation of central sensitization. This sensitization has led to the development of treatments such as pain neuroscience education, graded motor imagery and sensory discrimination to restore cortical maps and ultimately ease pain. Dr. Schabrun, a PhD from Western Sydney University is at the forefront of the understanding neuroplasticity of the human brain as it alters its structure and function throughout life, including memory, learning and recovery of function following illness and injury. Dr. Schabrun will present a keynote lecture on neuroplasticity and pain, be part of the keynote lecture panel and conduct a 4h lab session on Friday and repeat on Sunday focusing on: Using neuroplasticity to guide the treatment of pain. Dr. Schabrun’s lab session will use case studies to explore the role of plasticity at spinal and cortical levels in different pain presentations, including how this mechanism might contribute to the persistence and/or recurrence of pain. Participants will work through novel methods to assess and treat each case.