

Spinal Cord Injury: From the Bench to the Bedside

Overall Objective:

Provide an update and review on present and future spinal cord injury translation projects.

Course Objectives:

- Discuss acute management strategies and pharmacologic intervention after traumatic SCI.
- Gain insight and experience from previous and current spinal cord injury trials.
- Explore resources for maximizing SCI care for chronic conditions of pain and spasticity.

This one-day comprehensive course is designed to provide an update and summarize present and future spinal cord injury (SCI) clinical trials with a focus on transitioning laboratory work into the clinical setting. Topics will include the acute care, ICU management, clinical trials, pharmacology and surgical interventions for SCI.

Target Audience:

- Physicians and surgeons that care and manage the acute and chronic SCI patients: Neurosurgeons, Orthopedic surgeons, Traumatologists, Physical Medicine and Rehabilitation, Critical Care physicians, RN's, PA, and NP.
- Basic scientists with interest in translation adaptation of SCI medications and surgical treatment.
- Individuals interested in present SCI trials and potential future treatment strategies

5 Contact Hours

Time Frame	Core Topics	Speaker
12:00-12:05PM	Introduction to Course	Harrop/Vaccaro/Fehlings
12:05-1:05 PM	Acute interventions/Neuroprotection	
12:05-12:20 PM	Consortium for Spinal cord medicine guidelines <ol style="list-style-type: none"> 1. Discuss members and initiatives for consortium 2. Discuss general outline and methodology of evidence based approach 3. Review guideline and options for acute treatment of SCI patients 	Stephen Burns spburns@u.washington.edu
12:20-12:35 PM	ICU care and role of Blood pressure management <ol style="list-style-type: none"> 1) Discuss the anatomy and pathophysiology of acute SCI 2) Overview of initial hospital assessment and care of traumatic SCI patient. 2) Review evidence and role of blood pressure management in acute SCI patient 3) Discuss beneficial strategies in the ICU in terms of survival and reducing morbidities 	Sean Christie
12:35-12:50PM	Timing of Surgical Intervention <ol style="list-style-type: none"> 1) Discuss the basic science work on effect of acute decompression after traumatic SCI. 2) Describe the protocol and implementation of the present 	Mike Vives

	surgical treatment of acute SCI study. 3) Discuss present results from the STASCIS trial.	
12:50-1:00PM	Discussion and Questions Break	
1:15-2:20PM	Pharmacology	
1:15-1:30PM	Riluzole 1) Discuss the pathophysiology of Riluzole for treatment of neuronal injuries 2) Discuss beneficial results of drug intervention and present FDA status 3) Discuss potential adverse reactions. 4) Describe present status of therapy in terms of basic science and clinical trials	Michael Fehlings
1:30-1:45PM	Neuroshield (Magnesium Chloride Therapy) 1) Discuss the pathophysiology of Magnesium Chloride Therapy for SCI. 2) Discuss beneficial results of drug intervention 3) Discuss potential adverse reactions. 4) Describe present status of therapy in terms of basic science and clinical trials	Brian Kwon
1:45-2:00PM	Minocycline 1) Discuss the pathophysiology of minocycline for treatment of neuronal injuries 2) Discuss beneficial results of drug intervention and present FDA status 3) Discuss potential adverse reactions. 4) Describe present status of therapy in terms of basic science and clinical trials	Steve Casha
2:00-2:20PM	Discussion and Questions	
2:20-2:30PM	Break	
2:30-3:30 PM	Neuroregeneration	
2:30-2:42PM	Cethrin 1) Discuss the pathophysiology of Cethrin for treatment of neuronal injuries 2) Discuss beneficial results of drug intervention and present FDA status 3) Discuss potential adverse reactions. 4) Describe present status of therapy in terms of basic science and clinical trials	Jim Harrop
2:42-2:54 PM	Anti-NOGO 1) Discuss the pathophysiology of NOGO for treatment of neuronal injuries 2) Discuss beneficial results of drug intervention and present FDA status 3) Discuss potential adverse reactions.	? Schwab or Armin Curt

	4) Describe present status of therapy in terms of basic science and clinical trials	
2:54-3:06PM	Stem cell therapy (Geron) 1) Discuss the basic science work on effect of stem cell therapy for neurologic recovery after traumatic SCI. 2) Discuss beneficial results of stem cell intervention and present FDA status 3) Discuss potential adverse reactions. 4) Describe present status of therapy in terms of basic science and clinical trials	Edward Wirth
3:06-3:18PM	Electrical Stimulation 1) Discuss the pathophysiology of electrical stimulation for treatment of neuronal injuries 2) Discuss beneficial results of drug intervention and present FDA status 3) Discuss potential adverse reactions. 4) Describe present status of therapy in terms of basic science and clinical trials	Beverly Walters
3:18-3:30PM	Discussion and Questions	
3:30-3:40PM	Break	Michael Fehlings
3:40-4:40PM	Chronic Intervention / Assessment	
3:40-3:55PM	Recent advances in Pain management 1) Discuss the anatomy and pathophysiology of pain in SCI patients 2) Overview of present treatment and future treatment strategies 3) Review potential adverse reactions to treatments	Amie Jackson
3:55-4:10PM	Recent advances in Spasticity management 1) Discuss the anatomy and pathophysiology of spasticity in SCI patients 2) Overview of present treatment and future treatment strategies. 3) Review potential adverse reactions to treatments	Ralph Marino
4:10-4:25PM	Outcome Assessment in acute setting 1) Discuss the present outcome measurement strategies 2) Review limitations of present outcome strategies and measurement tool 3) Review potential newer tools and strategies to determine outcomes	Robert Grossman
4:25-4:40PM	Outcome Assessment in chronic setting 1) Discuss the present outcome measurement strategies 2) Review limitations of present outcome strategies and measurement tool	Susan Harkema

	3) Review potential newer tools and strategies to determine outcomes	
4:40-4:55PM	Discussion and Questions	
4:55-5:00PM	Concluding remarks	