WILL TO WIN SYMPOSIUM PROGRAM — Monday, May 13, 2013

7:45am **Continental Breakfast** - Forks Ballroom

8:30 **Opening Remarks: Dave McCrea**, Director, Spinal Cord Research Centre, University of Manitoba

8:40 **Robert Skinner**, University of Arkansas (Abstract pg.3)

From spinal cord to pedunculopontine nucleus to higher levels

9:05 **Monica Gorassini**, University of Alberta (Pg 4)

Mechanisms of spasticity in cerebral palsy

9:30 **Pablo Rudomin**, CINVESTAV, Mexico (Pg 5)

Non-random patterns of functional connectivity between dorsal horn neuronal networks are reorganized after intradermic capsaicin and temporarily restored by systemic lidocaine

9:55 **Laurent Vinay**, CNRS Marseille (Pg 6)

Calpain, KCC2 and sodium channels: a diabolic "menage a trois" leading to spasticity after spinal cord injury

10:20 **Comments by Chair: Shawn Hochman**, Emory University

10:30 **Refreshment break**

10:50 **Charles J Heckman,** Northwestern University (Pg 7)

Reverse engineering motor unit firing patterns to identify the structure of motor commands

11:15 **Martyn Goulding**, Salk Institute (Pg 8)

Playing cat and mouse with flexor-extensor control

11:40 **Ole Kiehn**, Karolinska Institute, Sweden (Pg 9)

Emergent principles for rhythm-generation in mammalian locomotor circuits

12:05 **Comments by Chair: Robert Burke**, NIH, Emeritus

12:15 **Lunch**

1:05pm **Eftekhar Eftekharpour,** University of Manitoba (Pg 10)

Targeting Oxidative stress for Neurotrauma Treatment: A New Approach for an Old Concept

1:30 **Serge Rossignol & Marina Martinez,** University of Montreal (Pg 11)

Spinal mechanisms involved in locomotor recovery after complete and partial spinal cord injury in mammals

1:55 **Richard Stein,** University of Alberta (Pg 12)

Feedback for Control of Walking

2:20 **Comments by Chair: Marc Binder,** University of Washington

2:30 **Refreshment break**

2:50 **Soheila Karimi**, University of Manitoba (Pg 13)

Reactivating endogenous mechanisms to optimize oligodendrocyte replacement and remyelination after spinal cord injury

3:15 **Karim Fouad,** University of Alberta (Pg 14)

Rewiring the injured spinal cord

3:40 **Comments by Chair: David Magnuson**, University of Louisville

6:00 **Dinner in Honor of Dr. Larry Jordan, Qualico Family Centre, Assiniboine Park**

7:45am **Continental Breakfast** - Forks Ballroom

8:30 **Trevor Drew**, University of Montreal (Abstract Pg 15)
Supraspinal and spinal interactions during movement

8:55 **Elzbieta Jankowska**, University of Gothenburg, Sweden (Pg 16)
How could spino-supraspinal neuronal loops contribute to the locomotion?

9:20 **Brian Noga**, Miami Project (Pg 17)
Facilitation of locomotion after spinal cord injury with electrical (deep brain) stimulation of the midbrain

9:45 **Marie-Claude Perreault**, Emory University (Pg 18)
Pathways for vestibular influence on thoracic sympathetic preganglionic neurons in the mouse

10:10 **Refreshment break**

10:30 **Réjean Dubuc,** University of Quebec at Montreal (Pg 19)
The mesencephalic locomotor region (MLR): a multifunctional control center

10:55 **Sten Grillner**, Karolinska Institute, Sweden (Pg 20)
How the brain makes us locomote - glimpses from Valley Forge to Winnipeg

11:20 **Lorne Mendell**, Stony Brook University (Pg 21)
Using neurotrophins to alter circuit behavior in the injured spinal cord

11:45 **Comments by Chair: Arthur Prochazka,** University of Alberta

11:55 **Lunch**

12:45pm **David Bennett**, University of Alberta (Pg 22)
Axonal inhibition far from the presynaptic terminal, produced by 5-HT1D receptors on sensory afferents.

1:10 **Patrick Whelan,** University of Calgary (Pg 23)
Dopaminergic control of locomotion

1:35 **Jorge Quevedo**, CINVESTAV, Mexico (Pg 24)
Monoaminergic modulation of pathways mediating PAD in the mouse spinal cord

2:00 **Ron Harris-Warrick**, Cornell University (Pg 25)
Changes in serotonin responses of identified spinal interneurons with age and spinal cord injury.

2:25 **Refreshment break**

2:45 **Alain Frigon,** University of Sherbrooke (Pg 26)
Interlimb coordination during split-belt walking in the chronic spinalized adult cat

3:10 **Doug Stuart,** University of Arizona (Pg 27)
Pioneers of spinal inhibition: Herzen/Sechenov to Sherrington to Renshaw/Eccles to Curtis

3:35 **Comments by Chair: Hans Hultborn,** University of Copenhagen, Denmark

3:45 **Closing Remarks: John Steeves,** ICORD, University of British Columbia