

Thursday

**14<sup>th</sup> ANNUAL KENTUCKY SPINAL CORD & HEAD INJURY  
RESEARCH TRUST SYMPOSIUM (KSCHIRT)  
June 12, 2008 - Embassy Suites Hotel - Lexington, KY**

7:30 - 8:15 am REGISTRATION and Continental Breakfast

8:15 – 8:30

Welcome and Opening Remarks  
Edward D. Hall, PhD, Director, UK Spinal Cord & Brain Injury Research Center

**SESSION 1**

**SIGNALING FOR CELL DEATH AND SURVIVAL  
James Geddes, Ph.D., Session Chair**

8:30 – 9:15

J. Marie Hardwick, Ph.D., - John Hopkins University  
*Apoptosis factors also regulate synaptic activity*

9:15 -10:00

Michal Hetman, M.D., Ph.D. – University of Louisville  
*The bright side of the NMDA receptor: cell survival signaling*

10:00 -10:30

COFFEE BREAK AND POSTERS

10:30 -11:15

Pamela A. Maher, Ph.D. – The Salk Institute  
*Common mechanisms underlying Neuroprotection from diverse toxic insults*

11:15 -12:00

Jeffrey M. Gidday, Ph.D. – Washington University  
*Stimulating Endogenous Neuroprotective Mechanisms in the CNS*

12:00 – 1:00

**LUNCH**

**SESSION 2**

**NEUROPROSTHESES: STATE OF THE ART BRAIN-MACHINE INTERFACES  
Alexander G. Rabchevsky, Ph.D, Session Chair**

1:00 – 1:45

John Donoghue, Ph.D. – Brown University  
*Neurotechnology to Restore Communication and Control in Spinal Cord Injury*

1:45 – 2:30

Greg A. Gerhardt, Ph.D. – University of Kentucky (Department of Anatomy & Neurobiology)  
*Brain Machine Interfaces: Second-by-Second Chemical Signaling in the CNS*

2:30 – 3:30

POSTER SESSION and BREAK

3:30 – 4:15

Aimee Arnoldussen, Ph.D. – WICAB, Inc.  
*BrainPort<sup>®</sup> as a Neural Prosthesis: Balance and Vision Applications*

4:15 – 5:00

Vivian Mushahwar, Ph.D. – University of Alberta CANADA  
*Intraspinal Neuroprostheses for Restoring Standing and Walking after Spinal Cord Injury*

**DINNER AT WOODFORD RESERVE DISTILLARY AND TOUR**

5:15-5:30

**Load Bus or Leave in Car for Woodford Reserve Distillery for Tour  
(30 Minute Drive) 7855 McCracken Pike, Versailles, KY**

6:30-8:30

**DINNER at Woodford Reserve Distillery**

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**SESSION 3**

**AXON GUIDANCE AND SYNAPTOGENESIS  
Stephen Onifer, Ph.D., Session Chair**

- 8:30 – 9:15 Nicholas C. Spitzer, Ph.D. – University of California, San Diego  
*New levels of plasticity: activity-dependent switching of transmitter and receptor specification*
- 9:15 – 10:00 Jeffery L. Twiss, M.D., Ph.D. – Alfred I DuPont Hospital for Children  
*Neuronal RNA localization & localized translation after axonal injury*
- 10:00 – 10:30 COFFEE BREAK
- 10:30 – 11:15 William Snider, M.D. – University of North Carolina  
*Regulation of axon growth by RAF/MEK/ERK and GSK-3 signaling pathways*
- 11:15 - 12:00 George Smith, Ph.D. – University of Kentucky (Department of Physiology)  
*Targeting axon growth and regeneration within the adult CNS*

12:00 – 1:00 pm LUNCH

**SESSION 4**

**BRAIN INJURY: FROM FRONTLINES TO FRONTIERS  
Jonathan Lifshitz, Ph.D., Session Chair**

- 1:00 – 1:45 Richard M. McCarron, Ph.D. – Naval Medical Research Center  
*Blast-induced trauma: vital mechanisms of injury, diagnosis and treatment*
- 1:45 – 2:30 Walter M. High, Jr., Ph.D. – University of Kentucky (Cardinal Hill Rehabilitation Hospital)  
*The Effect of Growth Hormone Replacement Therapy on Neuropsychological Impairment Following Traumatic Brain Injury*
- 2:30 – 3:30 POSTER SESSION AND BREAK
- 3:30 - 4:15 Robert J. Hamm, Ph.D. – Virginia Commonwealth University  
*Selective Cognitive Impairment following Experimental Brain Injury*
- 4:15 – 5:00 Alan I. Faden, M.D. – Georgetown University  
*New Therapeutic Approaches to Traumatic Brain Injury*
- 5:00 – 5:15 CLOSING REMARKS