

**15th Annual Meeting of
The Psychoneuroimmunology Research Society**

PREVIEW PROGRAM

PNIRS 2008

Promoting Innovation in Psychoneuroimmunology: From Cytokines to Society

**May 28 - 31, 2008
Madison, Wisconsin
Monona Terrace**

**Co-sponsored by
The National Cancer Institute
National Institutes of Health
Department of Health and Human Services**

PNIRS 2008 - MADISON

MEETING SCHEDULE

TIME	Wednesday, May 28	Thursday, May 29	Friday, May 30	Saturday, May 31	
8:30 – 9:00		Oral Session 1	Symposium: Impact of Inflammation on the Vulnerable Brain	Oral Session 5	
9:00 – 9:30					
9:30 – 10:00					
10:00 – 10:30					Coffee Break
10:30 – 11:00		Coffee Break	Coffee Break	Symposium: Individual Responses to the Environment	NeuroAIDS Symposium
11:00 – 11:30		Cousins Lecture	Robert Ader Symposium: New Frontiers in PNI		
11:30 – 12:00					
12:00 – 12:30		LUNCH: Roundtables with NIH	BBI Editorial Board Lunch	LUNCH: Workshop Discussion	
12:30 – 1:00					
1:00 – 1:30					
1:30 – 2:00		Presidential Symposium	Oral Session 3	Oral Session 4	Symposium: Dynamic Innervation of Lymphoid Tissue
2:00 – 2:30					
2:30 – 3:00					
3:00 – 3:30	SHORT COURSE				
3:30 – 4:00		Coffee Break	Coffee Break	Coffee Break	
4:00 – 4:30		Oral Session 2	Poster Data Blitz	Poster Data Blitz	
4:30 – 5:00			Poster Session 1	Poster Session 2	
5:00 – 5:30					
5:30 – 6:00					
6:00 – 6:30	Break			Business Meeting	
6:30 – 7:00	Senior Faculty/Trainee Colloquium (6:30-8:30)	Council Meeting (NOTE: Council will meet again if needed from 6-8 on Friday)	6:30-7:30 Past Trainee-Current Trainee Roundtable	BANQUET	
7:00 – 7:30					
7:30 – 8:00					
8:00 –		OPENING RECEPTION	Trainee Reception (7:30-)		

Wednesday, May 28, 2008

8:30- 3:00 **REGISTRATION OPEN**

3:00 – 6:00 **SHORT COURSE: New Molecular and Biological Approaches in PNI**

Dr. Elissa Epel: Neuroendocrine Measurement in PNI Research

Dr. Steve Cole: Genomic Approaches in PNI

Dr. Anil K. Sood: Impact of Microenvironment on Tumor Growth: Mechanisms and Targets

6:30 – 8:30 **SENIOR FACULTY/TRAINEE COLLOQUIUM**

Thursday, May 29, 2008

7:30-8:30 **CONTINENTAL BREAKFAST**

8:30 – 10:30 **ORAL SESSION 1: Cytokine Effects on the Brain and Behavior: Animal Models**

Switching transcription factor use preserves cytokine production after NF- κ B inhibition in neonatal cerebral hypoxia-ischemia. #104

Cobi J. Heijnen, Cora Nijboer, Floris Groenendaal, Frank van Bel, Annemieke Kavelaars

IL-1 signaling in astrocytes is essential for hippocampal-dependent memory functioning. #150

Ofra Ben Menachem-Zidon, Raz Yirmiya, Yair Ben Menahem, Inbal Goshen, Sys Kochavi, Omer Gaist, Tamir Ben Hur

Interferon- α and its CNS action: from JAK/STAT signaling to behavioral impact. #88

Jianping Wang

How does immune activation influence motivated behavior? Autonomic and limbic inputs drive the rostral nucleus accumbens following lipopolysaccharide injection. #94

Lisa Goehler, Gregory Thacker, Ron Gaykema

Alterations in brain and behavioral development of offspring following prenatal flu infection in rhesus monkeys. #100

Sarah J. Short, Christopher L. Coe, Gabriel Lubach, Martin Styner, John H. Gilmore

Minocycline attenuates Lipopolysaccharide (LPS)-induced brain cytokine expression, social withdrawal, and anhedonia. #18

Christopher Henry, Yan Huang, Angela Wynne, Justin Himler, Jonathan Godbout

Prenatal exposure to endotoxin sensitizes rhesus monkeys to exogenous stress throughout infancy. #48

Auriel Willette, Gabriele Lubach, Martin Styner, John Gilmore, Christopher Coe

Role of p38 MAP kinase-GRK2 interactions in chronic inflammatory hyperalgesia. #77

Annemieke Kavelaars, Niels Eijkelkamp, Ilona den Hartog, Cobi J. Heijnen

10:30 - 11:00 **COFFEE BREAK**

11:00 – 12:00 **2008 NORMAN COUSINS MEMORIAL LECTURE:**

Cytokines sing the blues: PNI at the translational interface

Dr. Andrew Miller, Emory University

12:00 – 1:30 **LUNCH BREAK: Roundtable Discussion of NIH Funding Opportunities**

1:30 – 3:30 **PRESIDENTIAL SYMPOSIUM: Neural Mediation of the Effects of Stress and Psychological Factors on the Endocrine and Immune Systems**

Dr. Richard Davidson Keynote Speaker: *Interactions between the brain and the periphery in the regulation and dysregulation of emotion, Univ. of Wisconsin, Madison, WI.*

Dr. Naomi Eisenberger: *Social pain: Neurocognitive, neuroendocrine, and immunological correlates, UCLA, CA*

Dr. Avgusta Shestyuk: *Brain regulation of stress reactivity: higher cortical regulation of peripheral activation in response to social threat, University of California, Berkeley, CA.*

Dr. Tor Wager: *Neuroimaging of autonomic responses to social evaluative threat: Localizing cortical-subcortical-peripheral pathways, Columbia University, NY.*

3:30 - 4:00 COFFEE BREAK

4:00 – 6:00 ORAL SESSION 2: Effects of Stress, Mood and Cognition on Inflammatory Processes

Effects of an acute laboratory stressor on regulatory T cell (Treg) levels in normal human peripheral blood mononuclear cells (PBMC). # 142

Gailen D. Marshall, Kevin S. Del Ben

Attachment avoidance predicts inflammatory response to marital conflict. #112

Jean-Philippe Gouin, Ronald Glaser, William Malarkey, Timothy Loving, Janice Kiecolt-Glaser

University examinations cause hyper-inflammation of mucosal tissues. #89

Christopher G. Engeland, Zongjan Fang, Phillip T. Marucha

Application of repeated social stress to pregnant gilts during early or late gestation differentially affects HPA axis and immune system activity of the piglets. #82

David Couret, Armelle Prunier, Isabelle Oswald, Francoise Thomas, Anne-Marie Mounier, Elodie Merlot

The effects of the physical work environment on circadian variations in heart rate variability. #79

Andrea Marques, Julian Thayer, Israel Christie., Anthony West, Carolyn Sterlin, Darrell Aberneth, Giovanni Cizza, Terry Phillips, Judith Heerwagen, Kevin Kampschroer, John Sollers, Marni Silverman, Esther Sternberg

Inflammation as a response to bereavement is associated with increased subgenual anterior cingulate activity. #57

Mary-Frances O'Connor, David Wellisch, Michael Irwin

Hostility is related to clusters of T-cell cytokines and chemokines in healthy men. #102

Annemieke Kavelaars, Paula Mommersteeg, Eric Vermetten, Elbert Geuze, Cobi J. Heijnen

Telomere length and pessimistic attitudes in older women. #105

Aoife O'Donovan, Jue Lin, Erin Clevenger, Alanie Lazaro, Jean M Tillie, Firdaus S Dhabhar, Owen Wolkowitz, Elizabeth Blackburn, Elissa Epel

6:00 – 7:30 COUNCIL MEETING

7:30 OPENING RECEPTION

Friday, May 30, 2008

7:30-8:30 CONTINENTAL BREAKFAST

8:30 – 10:30 SYMPOSIUM I: Impact of Inflammation on the Vulnerable Brain

Chair: Dr. Marina Lynch

Co-Chair: Dr. Rodney Johnson

Systemic inflammation and stroke

Dr. Stuart Allan, Faculty of Life Sciences, Oxford Road, Manchester, UK

Functional consequences of the systemic response to brain injury and disease

Dr. Daniel Anthony, Department of Pharmacology, University of Oxford, Oxford, UK

Neuroinflammation and cognitive and motor impairment in the aged: Evidence for a dysregulated linkage between the immune system and brain

Dr. Rodney Johnson, University of Illinois at Urbana Champaign, Urbana, IL.

Modulating microglial activation modulates age-related neuroinflammation

Dr. Marina Lynch, Trinity College Institute of Neuroscience, Trinity College, Dublin, Ireland

10:30 - 11:00 COFFEE BREAK

11:00 – 12:00 ROBERT ADER SYMPOSIUM: NEW FRONTIERS IN PNI

Chair: Dr. Jan Moynihan

Co-Chair: Dr. Cobi Heijnen

Behavioral regulation of immune response genes

Steve Cole, PhD, UCLA School of Medicine

Perspectives on the crosstalk between the immune and nervous system

Cobi Heijnen, PhD, University Medical Center

The Future Lies in the Past

Keith W. Kelley, PhD, University of Illinois, Urbana-Champaign

Drug Conditioning and the Wisdom of the Body

Shepard Siegel, PhD McMaster University, Hamilton, Ontario, Canada

12:00 – 1:30 BBI EDITORIAL BOARD LUNCH

1:30 – 3:30 ORAL SESSIONS 3 and 4 (CONCURRENT)

ORAL SESSION 3

Cytokines and Behavior: Bidirectional Relationships

Acute and chronic IL-1 β administrations differentially modulate learning and memory, acetylcholine efflux and neurotrophin expressions in the hippocampus: possible mechanisms involved in neuroprotection and neurodegeneration. #129

Cai Song, Pornnarin Teapavarapruk, Ye Zhang

Young adult APOE e4 carriers show a stress-induced decline in "hot cognition" and sIL-6r, but not IL-6. #19

Andrine Lemieux, Douglas Walton, Jon Nelson

Sleep, sleep deprivation and responses to lipopolysaccharide of interleukin-1 β receptor 1 and tumor necrosis factor- α receptor 1 double knockout mice. #152

Francesca Baracchi, M. R. Opp

Gender -specific associations between disturbed sleep and biomarkers of inflammation, coagulation and insulin resistance. #93

Edward C Suarez

Chronic stress reduces glucocorticoid and alpha-adrenergic receptor expression, and induces an inflammatory state characterised by increased IL-12 and IFN- γ production. #45

Niamh Curtin, Kingston Mills, Thomas Connor

Serum Interleukin (IL)-6 and sTNF-R1 are associated with development of multiple symptoms during first 30 days of allogeneic hematopoietic stem cell transplantation. #101

Xin Shelley Wang, Sergio Giral, Qiuling Shi, Loretta Williams, Jemas Rueben, Charles Cleeland

Rats infected early in life with bacteria exhibit exaggerated fever, sickness behavior, and lack of endotoxin tolerance in adulthood. #12

Staci D. Bilbo, Julie Wieseler, Ruth M. Barrientos, Linda R. Watkins, Steven F. Maier

Interferon- γ receptors are required for upregulation of indoleamine 2,3-dioxygenase and depressive-like behavior induced by *Bacillus Calmette-Guerin*. #144

Jason C. O'Connor, Caroline Andre, Marcus A. Lawson, Sandra S. Szegedi, Jacques Lestage, Nathalie Castanon, Keith W. Kelley, Robert Dantzer

ORAL SESSION 4

SNS Mediators, Glucocorticoid Mediators, Viral Outcomes

Sympathetic nervous system (SNS) regulation of T-lymphocyte proliferation in aging F344 rats. #135

Denise L. Bellinger, Christine Molinaro, Brooke A. Millar, Sam Perez, Cheri Lubahn, Dianne Lorton

Social temperament and lymph node innervation. #33

Erica Sloan, John Capitanio, Ross Tarara, Steve Cole

Disease-induced changes in sympathetic to immune signaling in adjuvant-induced arthritis (AA). #127

Dianne Lorton, Cheri Lubahn, Tracy Osredkar, Jeff Carter, Terry Der, Denise Bellinger

Glucocorticoid receptor expression in children shows opposite patterns of associations with anxiety and depression. #87

Jutta M Wolf, Edith Chen

Dexamethasone activates Epstein Barr Virus lytic replication through immediate early BZLF1 gene expression. #74

Seung-jae Kim, Eric V. Yang, Min Chen, Jeanette I. Marketon, Marshall V. Williams, Ronald Glaser

Optimism is associated with attenuated stressor-induced increases in inflammatory cytokines and negative mood states. #76

Lena Brydon, Cicely Walker, Andrew Wawrzyniak, Daisy Whitehead, Andrew Steptoe

The association of poor sleep to immunogenicity following an avian flu vaccine in healthy older adults. #153

Wilfred R. Pigeon, John Treanor, Stefan Costescu, Jan Moynihan

Effects of social disruption stress on CD4+ T cell activation, trafficking, and survival during influenza infection. #110

LaTonia Stiner-Jones, Mark Hanke, Nicole Powell, David Padgett, John Sheridan

3:30 - 4:00 COFFEE BREAK

4:00 – 4:30 POSTER DATA BLITZ (selected presenters A-L see below)

4:30 – 6:30 POSTER SESSION 1: First Author names beginning with letters A-L
(“First Author” refers to author listed first on the submitted abstract)

6:30 – 7:30 PAST TRAINEE—CURRENT TRAINEE ROUNDTABLE

7:30 – TRAINEE RECEPTION

Saturday, May 31, 2008

7:30-8:30 CONTINENTAL BREAKFAST

8:30 – 10:00 ORAL SESSION 5: Psychoneuroimmunology and Cancer

Chronic stress promotes tumor growth through a Src-dependent mechanism in a mouse model of ovarian cancer. #34

Guillermo N. Armaiz-Pena, Anil K. Sood, Lingegowda S. Mangala, Liz Y. Han, Yvonne G. Lin, Rosemarie Schmandt, Angela M. Sanguino, Gabriel Lopez-Berestein, Susan K. Lutgendorf, Steve W. Cole

Stress attenuates the efficacy of IL-12 immunostimulation: An in vivo study of resistance to experimental metastasis. #47

Hadas Meiboom, Shamgar Ben-Eliyahu, Ben Levi, Shaily Shemer

Restraint stress increases breast tumor growth and angiogenesis. #21

Jennifer Curry, Clay Marsh, Tim Eubank, Ryan Roberts, John Sheridan

Exercise therapy for ovarian cancer: How does exercise counteract stress-induced tumor growth? #29

Rosemarie Schmandt, Anil K. Sood, Susan K. Lutgendorf, Lingegowda S. Mangala, Guillermo Armaiz-Pena

Marginating pulmonary leukocytes in C57BL/6 mice: Distinct characteristics and enhanced NK cytotoxicity against syngeneic tumor cells. #44

Marganit Benish, Shamgar Ben-Eliyahu, Ariella Glasner, Yael Kalderon, Rivka Melamed

Norepinephrine upregulates VEGF IL-6, and IL-8 expression in human melanoma tumor cell lines: implications for stress-related enhancement of tumor progression. #11

Eric V. Yang, Seung-jae Kim, Elise L. Donovan, Min Chen, Amy Beickelman, Brian J. Hutzen, Jiayuh Lin, Sanford H. Barsky, Ronald

Glaser

10:00 - 10:30 COFFEE BREAK

10:30 – 12:30 SYMPOSIA II AND III (concurrent)

SYMPOSIUM II: Individual Responses to the Environment: Immune and health correlates

Chair: Dr. Sonia A. Cavigelli

Co-Chair: Dr. John P. Capitanio

Role of acute vs. long-term depressive mood in systemic inflammatory activity

Dr. Nicolas Rohleder and Dr. Greg E. Miller, University of British Columbia, Vancouver, BC Canada

Caregiving, repetitive thought, and serum IL-6 in older adults

Dr. Suzanne C. Segerstrom, Dr. Lindsey J. Schipper and Dr. Richard N. Greenberg, University of Kentucky, Lexington, KY

Antagonistic characteristics are positively associated with inflammatory markers independently of trait negative emotionality.

Dr. Anna Marsland, University of Pittsburgh, PA

Female temperament, tumor development and life span: Relation to glucocorticoid and TNF α levels in rats

Dr. Sonia A. Cavigelli, Dr. Jeanette M. Bennett, Dr. Kerry C. Michael and Dr. Laura Cousino Klein, Pennsylvania State University, University Park, PA

SYMPOSIUM III: NeuroAIDS Symposium: HIV and the Brain: Models and Treatment Approaches

Co-Chairs: Dr. Keith W. Kelley and Dr. Robert Dantzer

Stress, substance abuse and HIV interactions

Dr. Mary Jeanne Kreek, Rockefeller University

Role of innate immune responses in the neuropathogenesis induced by SIV in macaques

Dr. Janice E. Clements, John Hopkins University School of Medicine

Neural progenitors and HIV neuropathogenesis

Dr. Lynnae M. Schwartz, University of Pennsylvania School of Medicine

Genetic and epigenetic factors in neuroAIDS

Dr. Ian P. Everall, University of California at San Diego

Biomarkers, laboratory, and animal models for the design and development of adjunctive therapies for HIV-1 dementia and other neuroinflammatory disorders

Dr. Howard E. Gendelman, University of Nebraska Medical Center

12:30-1:30 LUNCH (Symposium Discussion)

1:30 – 3:30 SYMPOSIUM IV: Dynamic innervation of lymphoid tissue: Mechanisms and impact

Chair: Dr. Steve Cole

Neuroanatomy of lymphoid innervation: Recent advances and insights

Dr. Dwight M. Nance, Department of Physical Medicine and Rehabilitation, UCI School of Medicine, Orange, CA

Psychosocial and viral modulation of lymphoid innervation

Dr. Erica Sloan, UCLA, Cousins Center for PNI, CA

Injury and sprouting responses of sympathetic nerves in lymphoid organs: Impact on altered immunity in rheumatoid arthritis and potential therapeutic target

Dr. Dianne Lorton, Hoover Arthritis Research Center, Sun Health Research Institute

Sympathetic innervation across the lifespan: Implications for immune function

Dr. Denise Bellinger, Loma Linda University, School of Medicine

Dynamic innervation of lymphoid tissue: Themes and implications

Dr. Steve Cole, UCLA School of Medicine and HopeLab

3:30 – 4:00 COFFEE BREAK

4:00 – 4:30 POSTER DATA BLITZ (selected presenters M-Z see below)

4:30 – 6:00 POSTER SESSION 2: First Author names beginning with letters M-Z (“First Author” refers to author listed first on the submitted abstract)

6:00 – 7:00

BUSINESS MEETING

7:00 –

BANQUET