

**17th Annual Meeting of
The PsychoNeuroImmunology Research Society**

**PsychoNeuroImmunology:
Crossing disciplines to combat disease**



June 2-5, 2010, Trinity College Dublin, Ireland

Conference Program

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Acknowledgements

Funding for the 2010 meeting was made possible in part by a conference grant (R13) from the National Institute of Health and a conference and workshop grant from Science Foundation Ireland. We also gratefully appreciate the support of Elsevier Inc. for sponsoring the Brain, Behavior, and Immunity Editorial Board luncheon and providing the complimentary copies of Brain, Behavior, and Immunity for non-member registrants. We also acknowledge sponsorship from the German Endocrine Brain Immune Network (GEBIN), Neuroscience Ireland, Lundbeck Ireland, Failte Ireland and Trinity College Institute of Neuroscience.

Special acknowledgements are extended to local organizer, Thomas Connor, and his team for their dedication and commitment to making this meeting a success.



Society Officers and Committees

Officers

Rainer H. Straub (President)
Andrew Miller (Past President)
Raz Yirmiya (President-Elect)
Rodney Johnson (Secretary/Treasurer)
Susan Solomon (Executive Director)

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Trainee Scholars Program Coordinator

Colm Cunningham

Conference Press Officer

Victoria Burns

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Lisa Goehler
Colm Cunningham
Greg Freund
Rodney Johnson
Annemieke Kavelaars
Virginia Sanders
Chris Coe
Raz Yirmiya

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Lucile Capuron
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Susan Lutgendorf
Steve Cole
Paul Mills
Jan Moynihan
Mark Opp
Janice Kiecolt-Glaser
Jeffrey Woods

Message from the President of the PNIRS

Welcome to the PsychoNeuroImmunology Research Society (PNIRS). Whether you are a visitor, a candidate member (trainee or regular), or a long-term participant, you will find a wealth of information during this meeting that will be of interest and will offer insights into the unique expertise of the PNIRS.

I am greatly honored to serve the Society as President. It is great fun to participate in this Society at a time when brain-endocrine-immune interactions in health and disease are on the radar of attention for so many areas of medicine and society. The success of this subdiscipline is best demonstrated in the Society's own Journal *Brain, Behavior & Immunity*, which recently reached a strong position in the list of immunology / neuroscience journals (with an Impact Factor of 4.9).



We are living in an age of momentum, and of progress and innovation, where the keys to success lie with the ability to create new knowledge and discover new ideas. For more than two decades, the PNIRS has invested in interdisciplinary research and education at the intersection of Psychology / Psychiatry / Neurology, Endocrinology, and Immunology. These disciplines were the core fields of our research due to their systemic nature. In this society, members have outstanding capabilities of lateral thinking. Now, the PNIRS includes people from psychology, neurosciences, immunology, pharmacology, psychiatry, behavioral medicine, infectious diseases, endocrinology, rheumatology, dermatology, tumor biology, and many other fields.

Thanks to the vision of our founders, the PNIRS opened a new door to interactive science. That vision is realized today. Now, many go through this door to enter an exciting world of science. We communicate. We collaborate. We promote scientific interactions, and we coordinate exchange of information and material between different groups of interdisciplinary researchers. We educate students and scientists from within and outside the field.

We also illustrate that education, which is one of the best investments anyone can make in today's scientific world, is an important goal of the PNIRS. For many years, the percentage of trainee attendees at our meetings has been in the range of 25%. We have a relatively high turnover rate of members (20% new members per year), which is a highly positive sign: Attendees get infected by interdisciplinary ideas, are cross-pollinated, take up new information, and carry the interdisciplinary facts to their home universities or companies. We think that this leads to a substantial spreading of the PNIRS ideas, concepts, and philosophy.

Our goal is to educate the leaders of tomorrow in a wide range of fields, and we are deeply committed to education. We have an accessible faculty of PNIRS experts dedicated to teaching. This group is blessed with talented teachers whose curiosity, energy and passion for improving our science are truly inspiring.

Now, you attend our meeting in Dublin, Ireland, June 2-5, 2010. Come partake of, and participate in, the many wonderful ways in which we foster the interactive process. Enjoy the historic venue at Trinity College with the famous "Book of Kells" (800 Current Era). Most importantly, take the time to meet and talk with members of our PNIRS community. Old-timers will share science and good spirit with friends as we always do, while newcomers will enjoy getting to know our society.

Rainer H. Straub
President

Next Year's Meeting

PNIRS CHICAGO June 8-11, 2011 Cool Science, Hot Blues



Hilton Indian Lakes Resort



General Information

REGISTRATION & INFORMATION CENTER

Name badges and meeting bags will be distributed at the registration desk in the Upper Concourse of the Conference Center. The registration & information desk will be open during the following hours:

Wednesday, June 2: 1:00 pm - 6:30 pm

Thursday, June 3: 8:00 am – 4:00 pm

Friday, June 4: 8:00 am – 1:00 pm

Saturday, June 5: 8:00 am – Noon.

ACCOMPANYING PERSONS

Individuals (guests) accompanying registrants are welcome to attend the Opening Reception and Banquet as long as they have registered. Guest tickets for both events can be purchased at the Information Center. Guests are not permitted in either the lecture theatres, poster rooms during sessions or attend lunches that are provided by the PNIRS.

MOBILE PHONES

As a courtesy to others, please turn off mobile devices during all sessions.

INSTRUCTIONS TO PRESENTERS

Chairs

Chairs of the sessions should be in the designated room at least 10 minutes before the session starts in order to assist the speakers. In the event of a talk cancellation, the order and timing of the session is at the discretion of the chairs, but every effort should be made to keep the session on schedule for individuals attending specific talks within the session.

Speakers

Speakers should go to the designated room a minimum of 20 minutes before the session starts to upload their talk onto the computer and to meet the moderators. Speakers must strictly adhere to the allocated time.

Computer presentation guidelines

To minimize the need for connecting multiple computers to the projectors, house computers are provided in the lecture theatres. Talks can be uploaded via a flashdrive (memory stick). Both PC and Mac systems are available in the event that your presentation will work with only one type of operating system. Unless our computers do not work, please do not use your own personal laptop. It is assumed that all presentations will use PowerPoint or Adobe Acrobat. Contact the Information Center if you are using a different program.

Poster Presenters

The Poster Sessions will be held in the exhibitions space outside the Burke Theatre in the lower concourse. Poster Session 1 will be from 5:30 – 7:00 p.m. on Thursday, June 3rd. Poster Session 2 will be on Saturday, June 5th, from 2:00 – 3:30 p.m. All posters can be mounted during the morning of your respective session. It is preferred that your poster be setup at least 1 hour before the session begins. Poster boards are 1 meter wide x 2.25 meters high, and will accommodate A0 size posters (841mm wide x 1189mm high). Velcro for mounting the posters will be provided. Look for your poster number in this Program Book or on a list that will be posted in the poster area. Please remove your posters at the end of the session. Remaining posters may be discarded if they are not taken down prior to the second Poster Session or the end of the meeting.

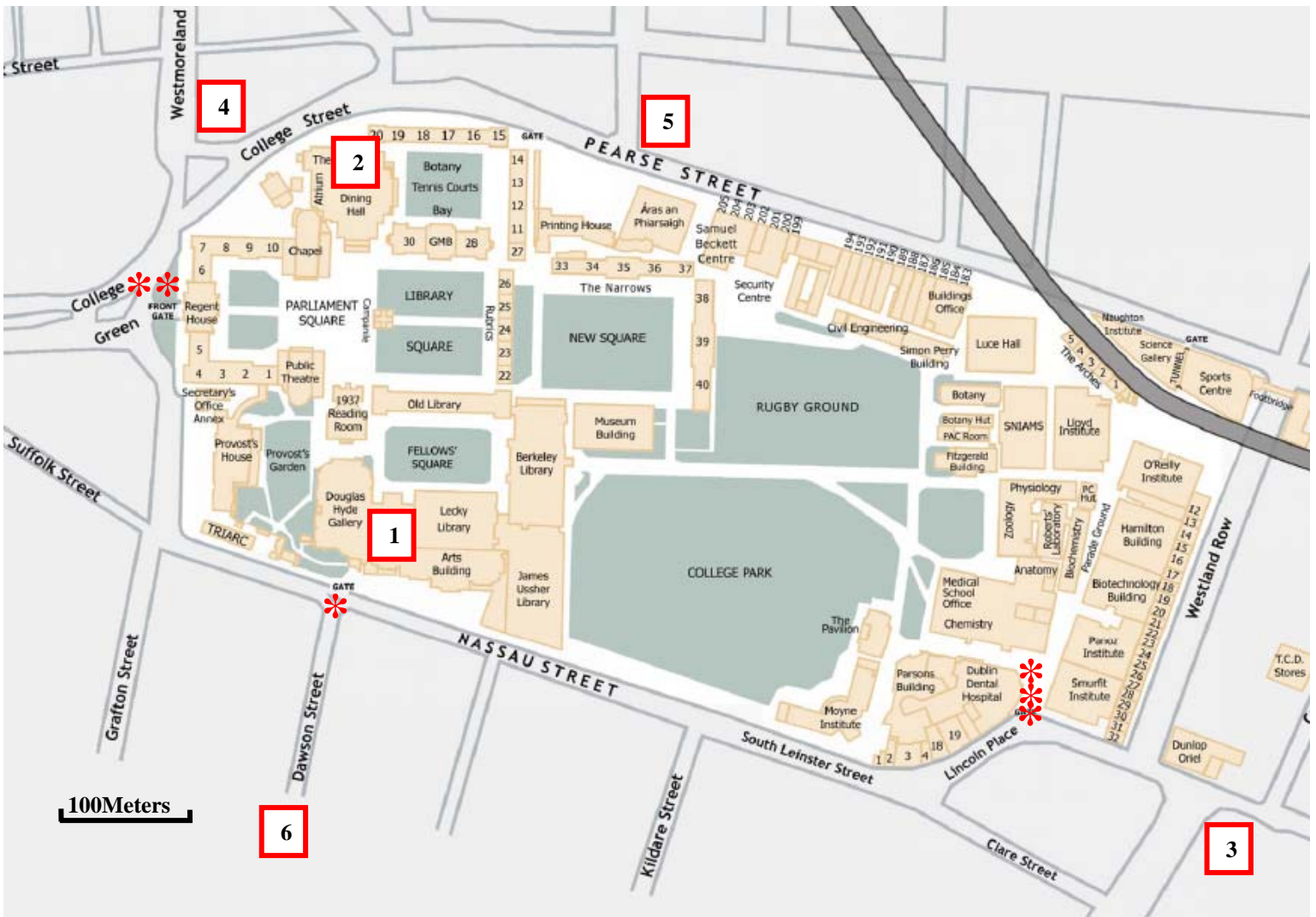
Poster Data Blitz

30 minutes before each Poster Session, there will be a short oral presentation of a subset of posters on display. The Poster Data Blitz talks will take place in the Burke Theatre. All Data Blitz participants will give a 3-minute oral presentation with a maximum of 2 slides. Given their brevity, please upload all files in advance before the 30-minute Data Blitz begins. After your presentations, please re-join everyone in the poster rooms.

2011 COUSINS AND ADER AWARDS

The winners of the 2011 Norman Cousins Award Lecture and the Robert Ader New Investigator Award will be announced at the Closing Banquet on Saturday, June 5th.

Map of Trinity College



Key

- 1 = Trinity Conference center**
- 2 = Trinity College Dining Hall (Opening reception/Lunches)**
- 3 = Davenport Hotel**
- 4 = Westin Hotel**
- 5 = Trinity Capital Hotel**
- 6 = The Mansion House (Gala Dinner)**

Enter the Trinity campus via the Dawson St. Gate * , the College Green Gate **, or the Lincoln place gate * for access to the conference center**

Norman Cousins Award Lecture



The Norman Cousins Award is the highest honor given by the PsychoNeuroImmunity Research Society to an individual for outstanding contributions to research in psychoneuroimmunology. Norman Cousins was an articulate spokesman and advocate for Psychoneuroimmunology, whose support and generosity has facilitated the career development of many investigators in this interdisciplinary field of endeavor. To contribute to the advancement of knowledge in psychoneuroimmunology, Ellen Cousins, Norman's wife, created the Norman Cousins Memorial Fund, and the California Wellness Foundation provided the endowment for the Norman Cousins Memorial Award and Lecture to be delivered as a highlight of the annual meeting of the PsychoNeuroImmunity Research Society.

Previous Award Lecturers:

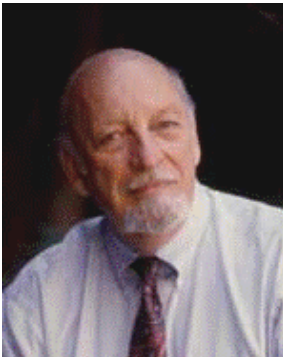
- 1991 – Robert Ader
- 1993 – George F. Solomon
- 1994 – Jean E. Merrill
- 1996 – Hugo O. Besedovsky
- 1997 – John F. Sheridan
- 1998 – Janice K. Kiecolt-Glaser
- 1999 – Cobi Heijnen
- 2000 – Robert Dantzer
- 2001 – Christopher Coe
- 2002 – Steven Maier
- 2003 – Keith Kelley
- 2004 – Ronald Glaser
- 2005 – Nicholas Cohen
- 2006 – Linda Watkins
- 2007 – Michael Irwin
- 2008 – Andrew Miller
- 2009 – Manfred Schedlowski

2010 Norman Cousins Award Lecture *Immune modulation of brain and behavioral functioning: From adaptive neuroplasticity to neuro- and psycho-pathology*

Raz Yirmiya, Ph.D.
Professor
Department of Psychology,
The Hebrew University of Jerusalem, Israel.



Robert Ader New Investigator Award



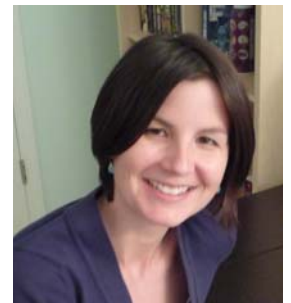
In honor of Dr. Robert Ader, a pioneer in the field of psychoneuroimmunology, the PsychoNeuroImmunity Research Society presents the Robert Ader New Investigator Award. This prestigious award is presented to an outstanding new research scientist who has made exciting basic science or clinical contributions to the field of PNI. The award honors Dr. Ader's innovation and creativity as a scientist and recognizes his contributions to the instantiation of PNI as a meaningful endeavor dedicated to the betterment of health and the prevention of disease.

Previous recipients of the Ader award:

- 2001 – Firdaus Dhabhar
- 2002 – Annemieke Kavelaars
- 2003 – Kurt Ackerman
- 2004 – Lucille Capuron
- 2005 – Susan Lutgendorf
- 2006 – Marian Kohut
- 2007 – Julienne Bower
- 2008 – Suzanne Segerstrom
- 2009 – Jonathan Godbout

2010 Robert Ader New Investigator Award *Early-life infection and neurodevelopment: Implications for psychopathology*

Staci D. Bilbo, Ph.D.
Assistant Professor
Department of Psychology & Neuroscience,
Duke University,
North Carolina, USA



PNIRS Senior Faculty-Trainee Colloquium

Supported by a Conference Grant from the National Institute of Health

Room 3126	Room 3051	Room 3071	Room 4047	Room 4050A
Faculty: Annemieke Kavelaars Colm Cunningham	Faculty: Andrew Miller Chris Coe	Faculty: Virginia Sanders Monika Fleshner	Faculty: Raz Yirmiya Lisa Goehler	Faculty: Rodney Johnson Greg Freund
Kinsey, Steven	O'Donovan, Aoife	Liatis, Andrea	McLinden, Kristina	Braunschweig, Daniel
Monahan, Angela	Fiorentino, Lavinia	Zunszain, Patricia	Vichaya, Elisabeth	Walker, Adam
Hein, Amy	Prossin, Alan	Cox, Fionnuala	Dilger, Ryan	Cardon, Michal
Speaker, Kristin	Milush, Jeffrey	Kullmann, Jennifer	Jurgens, Heidi	Field, Robert
	Hiles, Sarah		Skelly, Donal	

Congratulations to the 2010 Trainee Scholars!

Program at a Glance

Time	Wednesday June 2	Thursday June 3	Friday June 4	Saturday June 5	
8:30— 9:00		Presidential Symposium: <i>Integration of energy regulation and neuroendocrine immune pathways</i>	Oral Session 2	Member-Sponsored Symposium: <i>Immune system and tryptophan metabolism interaction in psychiatric disorders and neurodegenerative diseases</i>	
9:00— 9:30					Brain-Gut Axis Symposium
9:30— 10:00					
10:00— 10:30					
10:30— 11:00		Coffee Break	Coffee Break	Coffee Break	
11:00— 11:30		Oral Session 1	Oral Session 3	Oral Session 5	
11:30— 12:00 noon					
12:00 noon— 12:30					
12:30— 1:00		Lunch <i>Trainee Roundtable with NIH Staff</i>	Lunch	Lunch	
1:00— 1:30	Registration Open	<i>Council Meeting (Council members only)</i>	<i>BBI Editorial Board Meeting (from 11:30am – 1:30pm)</i>	<i>Junior Faculty- Trainee Roundtable</i>	
1:30— 2:00		ESNI Symposium: <i>Peripheral and central immune regulation of neural stem cells, neurogenesis and behavior</i>	Oral Session 4	Member-Sponsored Symposium: <i>Autism, Neuroimmunology, and Animal Models</i>	
2:00— 2:30					Poster Data Blitz II
2:30— 3:00					Poster Session II
3:00— 3:30	Educational Short Course	Coffee Break	Free time for sightseeing	Coffee Break	
3:30— 4:00		Cousins Lecture		NCI Symposium: <i>The role of host factors in the development and progression of neoplastic disease</i>	
4:00— 4:30		Poster Data Blitz I			
4:30— 5:00		Poster Session I			
5:00— 5:30		Break		Brain Behavior and Immunity Workshop	Business Meeting
5:30— 6:00					Break
6:00— 6:30	Senior Faculty- Trainee Mentoring Colloquium	Welcome Reception	Trainee Dinner	Closing Banquet	
6:30— 7:00					
7:00— 7:30					
7:30— 8:00					
8:00— 8:30					
8:30— 9:00 or later					

Wednesday, June 2

- 1:00** **REGISTRATION OPEN**
Upper Concourse, Conference Center
- 3:00 – 6:00** **EDUCATIONAL SHORT COURSE**
- Synge Theatre*, Upper Concourse, Conference Center
- 3:00:** *A primer in psychoneuroimmunology: Learning from the past*
Keith Kelley, University of Illinois at Urbana-Champaign, USA
- The immune system as a regulator of cognitive function**
- 4:00:** *Cognitive dysfunction in inflammatory and neurodegenerative conditions*
Colm Cunningham, Trinity College Dublin, Ireland
- 4:30:** *A role for the innate immune system in age-related deficits in synaptic function and cognition*
Marina Lynch, Trinity College Dublin, Ireland
- 5:00:** *Cognitive and affective changes induced by cancer immunotherapy*
Lucile Capuron, CNRS, Bordeaux, France
- 5:30:** *Meningeal immunity: A new player in regulation of cognitive function*
Jonahtan Kipnis, University of Virginia, USA
- 6:00 – 7:00** **BREAK**
Food and Refreshments for Trainee Scholars in the Upper Concourse outside the Synge Theatre
- 7:00 – 9:00** **SENIOR FACULTY-TRAINEE MENTORING COLLOQUIUM**
Rooms 3126, 3051, 3071, 4047 and 4050A, 3rd and 4th Floor, Conference Center

Thursday, June 3

**8:30 – 10:30 PRESIDENTIAL SYMPOSIUM:
Integration of energy regulation and neuroendocrine immune pathways (Sponsored by GEBIN)**

Burke Theatre, Lower Concourse, Conference Center

8:30: *Introduction*
Rainer H. Straub

8:42: *The intricate interface between immune and metabolic regulation – The special view on adipokines*
Giuseppe Matarese, University of Naples, Italy

9:09: *Regulation of T lymphocyte metabolism*
Kenneth A. Frauwirth, University of Maryland, USA

9:37: *Perinodal adipose tissue: An integral part of the mammalian immune system*
Caroline M. Pond, The Open University, Milton Keynes, UK

10:03: *Bioenergetics of immune functions: fundamental aspects and clinical importance in chronic inflammatory diseases*
Frank Buttgerit, Department of Medicine, Charite, Berlin, Germany

10:30 – 11:00 COFFEE BREAK

11:00 – 12:30 ORAL SESSION 1: Immunological changes and their relationship to ageing and dementia

Burke Theatre, Lower Concourse, Conference Center

Co-Chairs: Marina Lynch and Jonathan Godbout

11:00: *CHRONIC DISEASE CO-MORBIDITY AND INFLAMMATION IN AGING ADULTS: MODERATION BY PSYCHOLOGICAL WELL-BEING*
E. Friedman, C. Ryff, University of Wisconsin-Madison, Madison, WI, USA

11:15: *MINDFULNESS TO IMPROVE ELDER'S IMMUNE AND HEALTH STATUS*
J. A. Moynihan, R. Klorman, B. P. Chapman, P. R. Duberstein, K. W. Brown, M. Krasner, Y. Xia, X. Tu, N. L. Talbot, University of Rochester Medical Center, Rochester, NY, USA.

11:30: *PROTRACTED DOWNREGULATION OF CX3CR1 ON MICROGLIA OF AGED MICE AFTER LIPOPOLYSACCHARIDE CHALLENGE*
J.P. Godbout, A.M. Wynne, C.J. Henry, Y. Huang, A. Cleland, The Ohio State University, Columbus, Ohio, USA

11:45: *AN ANIMAL MODEL OF DELIRIUM DURING DEMENTIA: SYSTEMIC INFLAMMATION INDUCES ACUTE WORKING MEMORY DEFICITS IN THE PRIMED BRAIN*
D. Skelly, C. Murray, C. Cunningham, Trinity College Institute of Neuroscience, Dublin, Ireland

12:00: *DELINEATING THE ROLE OF THE BASAL FOREBRAIN CHOLINERGIC SYSTEM IN DELIRIUM DURING DEMENTIA USING THE MURINE-P75-SAPORIN IMMUNOTOXIN*
R. Field, A. Gossen, A. O'Connor, C. Cunningham, Trinity College Institute of Neuroscience, Dublin, Ireland

12:15: *INFLUENCE OF INTRACEREBRAL INFECTIONS WITH STREPTOCOCCUS PNEUMONIAE AND ESCHERICHIA COLI ON THE COURSE OF EXPERIMENTAL ALZHEIMER'S DEMENTIA.*
S. Ebert, A. Dopke, B. Kellert, S. Ribes, R. Nau, Universitätsmedizin Göttingen, Göttingen, Germany.

- 12:30 – 1:30 LUNCH (Included in Registration Fee)**
Trainee Roundtable with NIH Staff
 Trinity College Dining Hall (There will be reserved seating for the Roundtable Discussion Groups)
Council Meeting: Private dining room, Trinity College Dining Hall (Buffet Lunch)
- 1:30 – 3:30 ESNI Symposium: *Peripheral and central immune regulation of neural stem cells, neurogenesis and behavior (joint symposium with European School of Neuroimmunology)***
Burke Theatre, Lower Concourse, Conference Center
- Co-Chairs:** Gianvito Martino and Raz Yirmiya
- 1:30: *Therapeutic plasticity of neural stem cells***
 Gianvito Martino, San Raffaele Scientific Institute, Milan, Italy
- 2:00: *Genes, cells, activity and immunity in the regulation of adult hippocampal neurogenesis***
 Gerd Kempermann, CRTD — Center for Regenerative Therapies Dresden, Germany
- 2:30: *Cytokines in the brain: An age old problem or an old age problem?***
 Rodney W. Johnson, University of Illinois at Urbana-Champaign, USA
- 3:00: *Immune cells “shape” the mind: Where and how does the peripheral immune system control brain plasticity?***
 Michal Schwartz, The Weizmann Institute of Science, Rehovot, Israel
- 3:30 – 4:00 COFFEE BREAK**
- 4:00 – 5:00 2010 NORMAN COUSINS MEMORIAL LECTURE**
Burke Theatre, Lower Concourse, Conference Center
- Immune modulation of brain and behavior functioning: From adaptive neuroplasticity to neuro- and psycho-pathology*
 Raz Yirmiya, The Hebrew University of Jerusalem, Israel.
- 5:00 – 5:30 POSTER DATA BLITZ I**
Burke Theatre, Lower Concourse, Conference Center
- 5:30 - 7:00 POSTER SESSION I**
 Lower Concourse, Conference Center
- 7:00 – 9:00 WELCOME RECEPTION**
 Trinity College Dining Hall

Friday, June 4

8:30 – 10:30 PARALLEL SESSIONS: MEMBER-SPONSORED SYMPOSIUM 1 and ORAL SESSION 2

MEMBER-SPONSORED SYMPOSIUM 1: Immune system and tryptophan metabolism interaction in psychiatric disorders and neurodegenerative diseases (Sponsored by Lundbeck and GEBIN)

Burke Theatre, Lower Concourse, Conference Center

Co-Chairs: Aye Mu Myint and Markus J. Schwarz

8:30: *Inflammatory and tryptophan metabolite changes in animal models of sickness behavior*
Jason O'Connor, University of Illinois at Urbana-Champaign, USA

8:55: *Cytokines-Kynurenines interaction: Imbalanced Chemistry in Affective Disorders*
Aye Mu Myint, Ludwig-Maximilians University, Germany

9:20: *Cytokines-Kynurenines interaction: Controversies and Consequences in schizophrenia*
Markus J. Schwarz, Ludwig-Maximilians University, Germany

9:45: *Kynurenines in CNS Immune Cells in Neurodegenerative Diseases*
Gilles J Guillemin, University of New South Wales, Australia

10:10: *Discussant*

Brian E. Leonard, National University of Ireland, Galway, Ireland

ORAL SESSION 2: Effects of stress, stress mediators and social interaction on immune function and disease processes

Synge Theatre, Upper Concourse, Conference Center

Co-Chairs: Jan Moynihan and Adrian Dunn

8:30: *BEHAVIORAL STRESS REDUCES THERAPEUTIC SENSITIVITY OF PROSTATE CANCER*
S. Hassan, V. Baurin, Y. Karpova, D. Yancey, D. Perry, M. Cline, G. Kulik, Wake Forest University, Winston-Salem, NC, USA.

8:45: *SECOND THOUGHTS ON THE ROLE OF GLUCOCORTICOIDS IN THE IN VIVO SUPPRESSION OF NK ACTIVITY FOLLOWING STRESS*

S. Ben-Eliyahu, E. Rosenne, L. Sorski, B. Levi, Tel Aviv University, Tel Aviv, Israel.

9:00: *EPIGENETIC EFFECTS OF GLUCOCORTICOIDS ON NK CELLS*

J. L. Eddy, K. N. Krukowski, L. Janusek, H. L. Mathews, Loyola University, Chicago, IL, USA.

9:15: *EXOSOME-ASSOCIATED EXTRACELLULAR HEAT SHOCK PROTEIN 72 IS RELEASED BY STRESSOR EXPOSURE INTO THE BLOOD FROM INTESTINE AND FUNCTIONS AS A DANGER ASSOCIATED MOLECULAR PATTERN*

M. Fleshner, L. A. Beninson, T. Maslanik, University of Colorado-Boulder, Boulder, CO, USA

9:30: *REPEATED SOCIAL DEFEAT INCREASES THE REACTIVITY OF MICROGLIA*

M. L. Hanke, E. S. Wohleb, A. M. Wynne, C. J. Henry, M. T. Bailey, J. P. Godbout, J. F. Sheridan, The Ohio State University, Columbus, Ohio, USA

9:45: *THE SYMPATHETIC NERVOUS SYSTEM PROMOTES THE DEVELOPMENT OF B CELLS THAT SHOW REGULATORY POTENTIAL IN COLLAGEN-INDUCED ARTHRITIS*

G. Pongratz, M. Melzer, R. H. Straub, University Hospital Regensburg, Regensburg, Germany

10:00: *COMPUTATIONAL IDENTIFICATION OF GENE-SOCIAL ENVIRONMENT INTERACTION AT THE HUMAN IL6 LOCUS*

S. Cole, J. M. Arevalo, R. Takahashi, E. Sloan, S. Lutgendorf, A. K. Sood, J. F. Sheridan, T. E. Seaman, UCLA & Norman Cousins Center, CA, USA

10:15: SOCIAL INTERACTION PREVENTS THE DEVELOPMENT OF DEPRESSIVE-LIKE BEHAVIOR FOLLOWING NERVE INJURY: A POTENTIAL ROLE FOR IL-1BETA AND OXYTOCIN
A. DeVries, G. J. Norman, K. Karelina, J. Morris, N. Zhang, M. Cochran, The Ohio State University, Columbus, OH, USA.

10:30 – 11:00 COFFEE BREAK

11:00 – 12:30 ORAL SESSION 3: Infectious agents and neuropsychiatric disorders

Burke Theatre, Lower Concourse, Conference Center

Co-Chairs: Robert Yolken and Colm Cunningham

11:00: TOXOPLASMA INFECTION, IMMUNITY, AND HUMAN PSYCHIATRIC DISEASES
R.H. Yolken, Johns Hopkins School of Medicine, Baltimore, MD, USA

11:15: PROGRESSIVE GREY MATTER LOSS AND TEMPORAL CHANGES IN COGNITIVE FUNCTIONS ASSOCIATED WITH EXPOSURE TO HSV1 IN SCHIZOPHRENIA: A LONGITUDINAL STUDY
K.M. Prasad, S. Eack, D. Goradia, K.M. Pancholi, M.S. Keshavan, R.H. Yolken, V.L. Nimgaonkar, University of Pittsburgh School of Medicine, Pittsburg, USA

11:30: STRUCTURAL BRAIN CORRELATES OF HERV-W RELATED RNA DETECTED IN CEREBROSPINAL FLUIDS FROM PATIENTS WITH FIRST-EPISODE SCHIZOPHRENIA SPECTRUM DISORDER
H. Karlsson, M. Holtze, G. Engberg, P.A. Thomann, J. Schroder, Karolinska Institutet, Stockholm, Sweden

11:45: COMPLEX IMMUNE SYSTEM RESPONSES TO BOVINE CASEIN IN PEOPLE WITH PSYCHIATRIC DISORDERS
E.G. Severance, F.B. Dickerson, R.H. Yolken, Department of Pediatrics, Johns Hopkins University, Baltimore, MD, USA

12:00: MILD ENCEPHALITIS INFLAMMATION SUBGROUPS IN AFFECTIVE AND SCHIZOPHRENIC DISORDERS
K. Bechter, H. Reiber, S. Herzog, D. Fuchs, H. Maxeiner, H. Tumani, Ulm University, Guenzburg, Germany.

12:15: THE ROLE OF HERPES SIMPLEX VIRUS TYPE 1 IN ALZHEIMER'S DISEASE: POTENTIAL FOR TREATMENT WITH ANTIVIRALS
R.F. Itzhaki, A.L. Frost, M.A. Wozniak, University of Manchester, Manchester, UK

12:30 – 1:30 LUNCH (Included in Registration Fee)
BBI Editorial Board Meeting & Lunch (from 11:30–1:00: Westin Hotel, Ha'penny & Farthing room)

1:30 – 3:30 PARALLEL SESSIONS: MEMBER-SPONSORED SYMPOSIUM 2 and ORAL SESSION 4

MEMBER-SPONSORED SYMPOSIUM 2: Autism, Neuroimmunology, and Animal Models (including the Robert Ader New Investigator Award Lecture)

Burke Theatre, Lower Concourse, Conference Center

Chair: David Lawrence

1:30: Immune activation in utero interacts with mutant DISC1 in producing adult psychopathology
Mikhail Pletnikov, Johns Hopkins University School of Medicine, USA

1:55: The potential role of the maternal immune response in autism
Judy Van de Water, University of California-Davis, USA

2:20: Early-life infection and neurodevelopment: Implications for psychopathology
Staci Bilbo, Duke University, USA (**Robert Ader New Investigator Award Lecture**)

2:45: Neuroimmunological and genetic influences on autism-like phenotype of BTBR mice
David Lawrence, Wadsworth Center, USA

3:10: Discussant
Keith Kelley, University of Illinois at Urbana-Champaign, USA

ORAL SESSION 4: PNI at the translational interface

Synge Theatre, Upper Concourse, Conference Center

Co-Chairs: Carmine Pariante and Anil Sood

1:30: STRESS MANAGEMENT IN EARLY BREAST CANCER ASSOCIATED WITH INCREASED ENDOGENOUS OPIOIDS AND REDUCED PRO-INFLAMMATORY CYTOKINES

N. L. McCain, J. W. Robins, J. M. Walter, R. K. Elswick, Jr., D. P. Gray, I. Tuck, H. D. Bear, T. J. Smith, Virginia Commonwealth University & Massey Cancer Center, Richmond, Virginia, USA.

1:45: ACTIVATION OF P38 MAPK FOLLOWING THE INITIAL INJECTION OF IFN-ALPHA IS ASSOCIATED WITH THE DEVELOPMENT OF DEPRESSION AND FATIGUE DURING IFN-ALPHA TREATMENT

J. C. Felger, O. Alagbe, B. J. Woolwine, C. L. Raison, A. H. Miller, Emory University, Atlanta, GA, USA

2:00: EUDIAMONIC WELL-BEING IS ASSOCIATED WITH DECREASED INFLAMMATION AND INCREASED CORTISOL VARIABILITY IN FATIGUED BREAST CANCER SURVIVORS

S. Jain, S. L. Shapiro, L. Zeltzer, P. J. Mills, UCLA, Santa Clara University, UCSD, CA, USA.

2:15: THE RELATIONSHIP BETWEEN CYTOKINE GENE SINGLE NUCLEOTIDE POLYMORPHISMS AND SYMPTOM BURDEN AND QUALITY OF LIFE IN LUNG CANCER SURVIVORS

S. M. Rausch, M. M. Clark, C. Patten, L. Heshan, S. Felten, J. Sloan, P. Yang, Moffitt Cancer Center, Tampa, FL, USA

2:30: DOES SUICIDAL IDEATION EXACERBATE DEPRESSION-RELATED INFLAMMATORY ACTIVITY?

A. O'Donovan, G. Hoatam, G. Rush, B. M. Hughes, A. McCrohan, M. T. Cronin, C. O'Farrelly and K.M. Malone,

2:45: CHANGES IN INTERLEUKIN-6, C-REACTIVE PROTEIN AND INTERLEUKIN-10 IN PEOPLE WITH DEPRESSION FOLLOWING ANTIDEPRESSANT TREATMENT: A META-ANALYSIS

S. A. Hiles, J. Attia, A. L. Baker, University of Newcastle, New South Wales, Australia

3:00: PRO-INFLAMMATORY CYTOKINES CORRELATE WITH BASELINE AND SADNESS INDUCED CENTRAL MU-OPIOID NEUROTRANSMISSION IN UNMEDICATED MAJOR DEPRESSION

A. R. Prossin, A. E. Koch, P. Campbell, S. S. Zalcman, J. K. Zubieta, University of Michigan Medical School, Ann Arbor, MI, USA.

3:15: INCREASED GLUCOCORTICOID BINDING TO PERIPHERAL BLOOD MONONUCLEAR CELLS BEFORE MILITARY DEPLOYMENT IN INDIVIDUALS DEVELOPING PTSD SYMPTOMS 6 MONTHS AFTER DEPLOYMENT

M. van Zuiden, C. J. Heijnen, E. Geuze, H. Willemen, M. Maas, E. Vermetten, A. Kavelaars, University Medical Center Utrecht, Utrecht, The Netherlands and Research Centre – Military Mental Health, Ministry of Defence, The Netherlands.

3:30 onwards FREE TIME FOR SIGHTSEEING

6:30 - 7:30 BRAIN BEHAVIOR AND IMMUNITY WORKSHOP

Synge Theatre, Upper Concourse, Conference Center (Tea and Coffee will be served)

8:00 TRAINEE RECEPTION

Dandelion Café Bar, 130 St. Stephen's Green

Saturday, June 5

8:30 – 10:30 BRAIN-GUT AXIS SYMPOSIUM: Psychoneuroimmunology of the Brain-Gut Axis (Sponsored by SFI)

Burke Theatre, Lower Concourse, Conference Center

Chair: John F. Cryan

8:30: *From Bowel to Behaviour: Immune regulation of the brain-gut axis*

John F. Cryan, Alimentary Pharmabiotic Centre, University College Cork, Ireland

9:00: *"Gut feelings": Pathways for influence of gut microbes on mood and behavior*

Lisa Goehler, University of Virginia, USA

9:30: *Nervous modulation of gut immunity*

Wouter de Jonge, Academic Medical Center, Amsterdam, The Netherlands

10:00: *Dual cytoprotective versus barrier damaging effects of peripheral CRF1 receptor activation by cortagine in female mice ileum*

Cornelia Kiank, University of California-Los Angeles, USA

10:30 – 11:00 COFFEE BREAK

11:00 – 12:30 ORAL SESSION 5: Neuroimmune studies highlighting novel therapeutic targets

Burke Theatre, Lower Concourse, Conference Center

Co-Chairs: Annemieke Kavelaars and Steve Zalcman

11:00: *LEPTIN AND IMMUNE-TO-BRAIN COMMUNICATION: ITS ROLE IN LEUKOCYTE RECRUITMENT INTO THE BRAIN DURING SYSTEMIC LPS-INDUCED INFLAMMATION*

C. Rummel, W. Inoue, S. Poole, G. N. Luheshi, Justus-Liebig-University, Giessen, Germany, McGill University, Montreal, Canada and National Institute for Biological Standards and Control, Potters Bar, UK

11:15: *OPIOID & ALCOHOL ACTION: THE ROLE OF BRAIN & SPINAL CORD INNATE IMMUNE SIGNALLING.*

M. R. Hutchinson, Y. Wu, L. Liu, S. Phipps, K. C. Rice, J. K. Coller, L. R. Watkins, A. A. Somogyi, University of Adelaide, Adelaide, Australia, University of Queensland, National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism National Institutes of Health, University of Colorado at Boulder, USA.

11:30: *A NOVEL NEURONAL MECHANISM FOR TRANSITION FROM ACUTE TO CHRONIC PAIN: EPINEPHRINE AND PROSTAGLANDIN-E2 AS MODELS FOR STRESS AND INFLAMMATION-ASSOCIATED HYPERALGESIA*

N. Eijkelkamp, H. Wang, J. N. Wood, R. Dantzer, K. W. Kelley, C. J. Heijnen, A. Kavelaars, University Medical Center Utrecht, Utrecht, Netherlands, University of Illinois at Urbana-Champaign, Urbana, IL, USA and University College London, London, UK

11:45: *STRONG ACTIVATION OF DOPAMINE PATHWAY IN SYNOVIAL FIBROBLASTS FROM RHEUMATOID ARTHRITIS PATIENTS*

S. Capellino, F. Marino, A. Luini, M. Cosentino, R. H. Straub, University Hospital Regensburg, Regensburg, Germany and University of Insubria, Varese, Italy.

12:00: *THE ENDOCANNABINOID SYSTEM IS INFLUENCED BY STEROID HORMONES IN RHEUMATOID ARTHRITIS*

T. Lowin, E. Neumann, O. Wiesner, U. Müller-Ladner, R. H. Straub, University Hospital of Regensburg, Regensburg, Germany and Justus-Liebig-University of Giessen, Giessen, Germany.

12:15: CORTICOTROPIN-RELEASING FACTOR-MEDIATED ENHANCEMENT OF INTERLEUKIN-6-INDUCED ACTIVATION OF SUB-MUCOSAL NEURONS.

D. O'Malley, J. F. Cryan, T. G. Dinan, University College Cork, Cork, Ireland

- 12:30 – 1:30 LUNCH (Included in Registration Fee)**
Junior Faculty-Trainee Roundtable
Trinity College Dining Hall (There will be reserved seating for the Roundtable Discussion Groups)
- 1:30 – 2:00 POSTER DATA BLITZ II**
Burke Theatre, Lower Concourse, Conference Center
- 2:00 - 3:30 POSTER SESSION II**
Lower Concourse, Conference Center
- 3:30 – 4:00 COFFEE BREAK**
- 4:00 – 6:00 NCI SYMPOSIUM: The role of host factors in the development and progression of neoplastic disease**

Burke Theatre, Lower Concourse, Conference Center

Chair: Firdaus Dhabhar

4:00: *Psychological interventions and immune function in cancer patients*
Bonnie McGregor, Fred Hutchinson Cancer Research Center, Seattle, USA

4:30: *Molecular and biological effects of stress on cancer metastasis*
Anil Sood, MD Anderson Cancer Center, Houston, USA

5:00: *Psychoneuroimmune factors in the context of B Cell Lymphoma*
John Gordon, University of Birmingham, UK

5:30: *Anxiety- and stress-related behavioral phenotypes and susceptibility to skin cancer.*
Firdaus Dhabhar, Stanford University, USA
- 6:00 – 7:00 BUSINESS MEETING**
- 7:30 - Late CLOSING BANQUET (Included in Registration Fee)**
Dinner and Dancing
Mansion House, Dawson Street, Dublin 2.

Poster Session 1

Thursday, June 3, 5:30 – 7:00 p.m.

In Order by Poster Number (Posters 1-89)

■ Denotes Participation in Data Blitz Session 1

- 1 *IS INFLAMMATION LINKED TO COGNITIVE IMPAIRMENT IN FIRST-EPISODE PSYCHOSIS AND IN HEALTHY CONTROLS?*
M. Aas, V. Mondelli, T. Touloupoulou, A. Reichenberg, M. Di Forti, T. Marques, B. Wiffen, R. Handley, H. Taylor, N. Hepgul, H. Fisher, A. D'Albenzio, M. Di Nicola, M. Russo, A. David, R. Murray, P. Dazzan and C. Pariante
- 2 *PERIPHERAL INFLAMMATION INDUCES DEPRESSIVE-LIKE BEHAVIOUR AND ALTERS PERIPHERAL AND CENTRAL CYTOKINE EXPRESSION – IMPLICATIONS FOR THE CYTOKINE THEORY OF DEPRESSION*
C. Bay-Richter, S. Janelidze, L. Hallberg, L. Träskman Bendz and L. Brundin
- 3 *HOSTILITY IS RELATED TO LEUKOCYTE TELOMERE SHORTNESS IN MEN AND WOMEN FROM THE WHITEHALL II COHORT*
L. Brydon, L. Butcher, M. Hamer, K. O'Donnell, R. Endrighi, J. D. Erusalimsky and A. Steptoe
- 4 *THE IMMUNE SYSTEM REGULATES SENSORIMOTOR GATING ACTIVITY THROUGH EXPRESSION OF KISSPEPTIN*
M. Cardon, N. Ron-Harel, G. M. Lewitus and M. Schwartz
- 5 *CANCER RECURRENCE CONCERNS PREDICT INCREASED INTERLEUKIN ACTIVITY SURROUNDING A MEDICAL FOLLOW-UP VISIT*
M. F. Clayton, G. W. Donaldson and P. deSchweinitz
- 6 *TLR4 HAPLOTYPES IN ALCOHOL AND OPIOID DEPENDENT POPULATIONS*
J. K. Collier, Y. Wu, J. M. White, M. R. Hutchinson and A. A. Somogyi
- 7 *INTRACEREBRAL HEMORRHAGE IN AFRICAN AMERICAN POPULATIONS: PERTINENT OUTCOMES AND RISK FACTORS*
K. C. Colter, R. Gupta, A. Jayam Trouth
- 8 *A ROLE FOR CENTRAL IL-1BETA IN THE SUPPRESSION OF LOCOMOTOR ACTIVITY INDUCED BY THE BETA2-ADRENOCEPTOR AGONIST CLENBUTEROL?*
K. J. Ryan, K. M. Ryan, E. W. Griffin, E. N. McNamee, A. Harkin and T. J. Connor
- 9 *THE BETA2-ADRENOCEPTOR AGONIST CLENBUTEROL ATTENUATES KAINIC ACID-INDUCED NEUROINFLAMMATION AND APOPTOSIS IN THE HIPPOCAMPUS WHICH IS COUPLED WITH INCREASED EXPRESSION OF BDNF AND NGF*
L. C. Gleeson, E. W. Griffin, T. J. Connor and A. Harkin
- 10 *TRANSGENERATIONAL EFFECTS OF LPS AND ANIMAL MODELS OF DEPRESSION*
T. M. Reis-e-Silva, M. M. Bernardi and F. A. Costa-Pinto
- 11 *INFECTION-ASSOCIATED CHANGES IN 5-HT FUNCTION*
Y. Couch, Q. Xie, C. Martin, J. Raley, A. Davies, N. Sibson, T. Sharp and D. Anthony
- 12 *THE NCAM-MIMETIC PEPTIDE FGL UP-REGULATES CD200 EXPRESSION IN VITRO.*
F. F. Cox, V. Berezin, E. Bock and M. A. Lynch
- 13 *NUCLEAR FACTOR INTERLEUKIN 6 IS A NEW DELAYED EARLY CELL ACTIVATION MARKER IN THE RAT BRAIN DURING THE TIME COURSE OF LPS-INDUCED SYSTEMIC INFLAMMATION*
J. Damm, R. Gerstberger, J. Roth, G. N. Luheshi and C. D. Rummel

- 14 *BIOLOGICAL EMBEDDING OF STRESS THROUGH INFLAMMATION PROCESSES IN CHILDHOOD*
A. Danese, A. Caspi, B. Williams, A. Ambler, K. Sugden, J. Mika, H. Werts, J. Freeman, C. M. Pariante, T. E. Moffitt and L. Arseneault
- 15 *VALIDATION OF A HIGH-SENSITIVITY ASSAY FOR C-REACTIVE PROTEIN IN SALIVA*
I. Ouellet-Morin, A. Danese and L. Arseneault
- 16 *MATERNAL SEPARATION INCREASES MURINE MELANOMA METASTATIZATION AND IMPAIRS ANTI-CANCER IMMUNE RESPONSES*
B. H. De Lorenzo, R. R. Novaes e Brito, P. Xander and D. Suchecki
- 17 *INDIVIDUAL COPING STRATEGIES TO SOCIAL STRESS ARE RELATED TO DIFFERENCES IN PHYSIOLOGICAL STRESS RESPONSE AND IMMUNE STATUS.*
Z. De Miguel, O. Vegas, L. Garmendia, A. Arregi, G. Beitia and A. Azpiroz
- 18 *INCREASED MATERNAL BMI IS ASSOCIATED WITH INFANT WHEEZING IN EARLY LIFE.*
A. de Vries, R. M. Reynolds, J. R. Seckl, M. van der Wal, G. J. Bonsel and T. G. Vrijkotte
- 19 *PERIPHERAL POLYINOSINIC:POLYCYTIDYLIC ACID ADMINISTRATION ELICITS ACUTE INFLAMMATORY EFFECTS AND DEFICITS IN HIPPOCAMPAL-DEPENDENT LEARNING AND MEMORY IN NEONATAL PIGLETS*
R. N. Dilger and R. W. Johnson
- 20 *THE PRO-INFLAMMATORY CYTOKINE TNF- α REGULATES THE EXPRESSION OF THE SEROTONIN TRANSPORTER (SERT) GENE IN PRIMARY ASTROCYTES AND THE C6 GLIOMA CELL LINE.*
S. Malynn, A. C. Torres, P. Moynagh and J. Haase
- 21 *DEVELOPMENT OF A NEW IN VITRO ASSAY TO TEST THE REPULSION OF SYMPATHETIC NERVE FIBERS*
A. Fassold, W. Falk and R. H. Straub
- 22 *THE EFFECTS OF MDMA ON NEUTROPHIL ACTIVITY AND LEUKOCYTE DISTRIBUTION ARE NOT MEDIATED BY BETA2-ADRENERGIC RECEPTOR*
V. Ferraz-de-Paula, A. Ribeiro, M. L. Pinheiro, R. M. Moreau and J. Palermo-Neto
- 23 *NEUROINFLAMMATION AND PARKINSON'S DISEASE: QUANTITATIVE ANALYSIS OF GENE EXPRESSION ALTERATIONS IN THE SUBSTANTIA NIGRA OF MICE EXPOSED TO MPTP OR LPS WITH A CUSTOM QPCR ARRAY*
N. M. Filipov, R. B. Pringle and S. Lee
- 24 *TOLL LIKE RECEPTOR 4: A ROLE IN MORPHINE IMMUNOMODULATORY EFFECT*
S. Franchi, S. Moretti, C. Scavullo, A. Valsecchi, A. E. Panerai and P. Sacerdote
- 25 *DEPRESSIVE SYMPTOMS AND INFLAMMATORY CYTOKINES IN WOMEN WITH PRETERM AND TERM DELIVERY*
E. Fransson, A. Hjelmstedt, A. Dubicke, B. Byström, M. Lekander and G. Ekman Ordeberg
- 26 *THE MITOCHONDRIAL UNCOUPLING PROTEIN 2 AFFECTS ANXIETY-LIKE BEHAVIOUR AND SUSCEPTIBILITY TO PSYCHOLOGICAL STRESS*
U. Gimsa, E. Kanitz, W. Otten, M. Tuchscherer, S. M. Ibrahim and S. M. Ibrahim
- 27 *EFFECTS OF THE CHRONIC TREATMENT OF 5-HT₄ RECEPTOR AGONIST (RS 67333) IN SUBJECTS WITH DIFFERENT COPING IN RESPONSE TO SOCIAL STRESS*
E. Gómez-Lázaro, A. Arregi, G. Beitia, O. Vegas, A. Azpiroz and L. Garmendia
- 28 *MARITAL BEHAVIOR, OXYTOCIN, AND WOUND HEALING*
J. Gouin, S. Carter, H. Pournajafi-Nazarloo, R. Glaser, W. Malarkey, T. Loving, J. Stowell and J. Kiecolt-Glaser

- 29 *SUB-SEPTIC SYSTEMIC INFLAMMATION DOES NOT IMPAIR PERFORMANCE IN SOCIAL COGNITION TASKS*
J. S. Grigoleit, J. S. Kullmann, O. T. Wolf, H. Engler, E. R. Gizewski, J. R. Oberbeck and M. Schedlowski
- 30 *IMPACT OF IL-1BETA AND TNF ON THE CIRCADIAN RHYTHM OF SYNOVIOCYTES IN OSTEOARTHRITIS (OA) AND RHEUMATOID ARTHRITIS (RA)*
S. Haas, W. Falk and R. H. Straub
- 31 *DIFFERENCES IN THE CONTRIBUTION OF PERIPHERALLY-RELEASED INTERLEUKIN (IL)-6, BRAIN IL-1BETA AND PROSTANOIDS IN MEDIATING LIPOPOLYSACCHARIDE-INDUCED FEVER AND SICKNESS BEHAVIOUR*
L. M. Harden, I. du Plessi, J. Roth, L. C. Loram, S. Poole and H. P. Laburn
- 32 *THE EFFECT OF A BETA-ADRENERGIC BLOCKER AND A COX-2 INHIBITOR ON HEALING OF COLON, MUSCLE, AND SKIN IN RATS UNDERGOING COLONIC ANASTOMOSIS*
O. Hazut, L. Shaashua, M. Benish, B. Levi, B. Benjamin, O. Zmora and S. Ben-Eliyahu
- 33 *SUSTAINED HIPPOCAMPAL IL-1 β OVEREXPRESSION IMPAIRS MEMORY AND REDUCES HISTONE H3 ACETYLATION*
A. M. Hein, A. H. Moore, J. A. Olschowka and M. K. O'Banion
- 34 *INTERLEUKIN-2 REDUCES EXTRACELLULAR CORTICAL SEROTONIN: IMPACT ON DEPRESSIVE-RELATED AND ANXIETY-LIKE BEHAVIOUR.*
B. D. Karrenbauer, C. P. Mueller, R. Spangel, Y. J. Ho, R. K. Schwarting and C. R. Pawlak
- 35 *A SMALL PEPTIDE INHIBITOR OF THE JNK-AP-1 PATHWAY PROTECTS AGAINST HYPOXIC-ISCHEMIC BRAIN DAMAGE AND IMPROVES BEHAVIORAL OUTCOME WITHOUT INHIBITING NEUROINFLAMMATION*
C. H. Nijboer, C. J. Heijnen, M. van der Kooij, F. Ohl, F. van Bel and A. Kavelaars
- 36 *MESENCHYMAL STEM CELLS TO TREAT HYPOXIC-ISCHEMIC BRAIN DAMAGE: FORMATION OF NEW NEURONS AND OLIGODENDROCYTES TO RESTORE DAMAGE, CORTICOSPINAL MOTOR TRACT ACTIVITY AND SENSORIMOTOR BEHAVIOR*
C. van Velthoven, A. Kavelaars, F. van Bel and C. J. Heijnen
- 37 *MICROGLIAL GRK2 DETERMINES DURATION OF INFLAMMATORY PAIN*
A. Kavelaars, N. Eijkelkamp, H. L. Willemen, R. Deumens, R. Deumens, G. W. Dorn II, R. Dantzer, K. W. Kelley and C. J. Heijnen
- 38 *INHIBITING ENDOCANNABINOID CATABOLIC ENZYMES ATTENUATES NEUROPATHIC PAIN VIA DISTINCT CANNABINOID RECEPTOR MEDIATED MECHANISMS OF ACTION*
S. G. Kinsey, J. Z. Long, B. F. Cravatt and A. H. Lichtman
- 39 *EXTRAVERSION PREDICTS HIGHER IGG TITERS IN RESPONSE TO ANTIGEN CHALLENGE IN OLDER ADULTS*
J. M. Knight, B. P. Chapman, N. L. Talbot, P. R. Duberstein, M. S. Krasner and J. A. Moynihan
- 40 *EFFECT OF PURINOCEPTORS ON MODULATION OF NATURAL KILLER RECOGNITION IN DIFFERENT SPECIES*
F. Kovaru, H. Kovaru, A. Fiserova, V. Lisa, M. Palikova and R. Dvorak
- 41 *PSYCHOTROPICS EFFECTS ON IMMUNOCYTES AND BRAIN CELLS.*
H. Kovaru, F. Kovaru, V. Lisa and A. Fiserova
- 42 *THE EFFECTS OF IMMEDIATE AND DELAYED PERIPHERAL LPS ADMINISTRATION ON CONTEXTUAL FEAR MEMORY CONSOLIDATION, BDNF MRNA, AND BRAIN/SERUM EXPRESSION OF CYTOKINES/CHEMOKINES IN MICE*
D. Kranjac, K. A. McLinden, L. E. Deodati, M. Kahn, A. J. Tarr, R. A. Kohman, M. R. Papini, M. J. Chumley and G. W. Boehm

- 43 *EFFECTS OF CHRONIC STRESS-INDUCED DEPRESSION IN MICE ON THE NUMBER AND MORPHOLOGY OF MICROGLIA*
T. Kreisel, R. Reshef, S. Jung and R. Yirmiya
- 44 *EXERCISE TRAINING REDUCES DIETARY -INDUCED ACTIVATION AND APOPTOSIS OF T CELLS IN INGUINAL LYMPH NODES.*
K. Krüger, F. Tessmann, C. Mirk, C. Pilat and F. C. Mooren
- 45 *MOOD, WORKING MEMORY AND BRAIN ACTIVITY DURING EXPERIMENTAL HUMAN ENDOTOXEMIA*
J. S. Kullmann, J. S. Grigoleit, C. Rosenberger, H. Engler, O. T. Wolf, J. R. Oberbeck, M. Schedlowski and E. R. Gizewski
- 46 *HUMAN NAIVE T HELPER CELLS WORK AT NIGHT*
T. Lange, B. Oelke and J. Born
- 47 *PROLONGED STRESS DISRUPTS IL-12 AND CPG IMMUNOSTIMULATORY EFFECTS*
B. Levi, Y. Goldfarb, L. Sorski, E. Rosenne, R. Melamed and S. Ben-Eliyahu
- 48 *LPS-INDUCED ADRENERGIC RECEPTOR GENE EXPRESSION IN DIFFERENTIATED AND NON-DIFFERENTIATED THP-1 HUMAN MONOCYTES*
A. I. Liatis, T. Pace and A. H. Miller
- 49 *METHAMPHETAMINE DEREGULATES THE EXPRESSION OF IMMUNE FACTORS: A CROSS-SPECIES TRANSLATIONAL REPORT*
M. S. Huckans, D. Choi, A. Mitchell, H. Lubner and J. M. Loftis
- 50 *PREFERENTIAL DIFFERENTIATION OF TH17 CELLS IN OFFSPRING OF IMMUNE-ACTIVATED DAMS IN A PRENATAL MOUSE MODEL OF AUTISM*
M. Mandal, A. Marzouk, R. Donnelly and N. M. Ponzio
- 51 *PERIPHERAL ADMINISTRATION OF LPS EXACERBATES SPONTANEOUS RELAPSE IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS.*
S. Mardiguian, S. Patel, N. R. Sibson, G. Watt and D. C. Anthony
- 52 *STRENUOUS PHYSICAL STRESS INCREASES RISK OF RESPIRATORY TRACT INFECTION (RTI)*
M. Pannacci, V. Lucini, A. Caronno, S. Dugnani and F. Scaglione
- 53 *LATENT VIRUS REACTIVATION: SPACE TO EARTH*
S. K. Mehta, R. J. Cohrs, D. H. Gilden, S. K. Tyring, V. A. Castro, C. M. Ott and D. L. Pierson
- 54 *THE MARGINATING IMMUNE COMPARTMENTS IN RATS' LUNGS AND LIVER: CHARACTERISTICS OF CONTINUOUS INFLAMMATION AND UNIQUE ACTIVATION POTENTIAL*
R. Melamed, M. Benish, E. Rosenne, Y. Goldfarb, B. Levi and S. Ben-Eliyahu
- 55 *PRENATAL LIPOPOLYSACCHARIDE (LPS) EXPOSURE ALTERS THE TROPHIC ENVIRONMENT OF THE DEVELOPING NIGRO-STRIATAL DOPAMINE (DA) PATHWAY*
A. J. Monahan, Z. Ling and P. M. Carvey
- 56 *MAST CELLS INFLUENCE HIPPOCAMPAL NEUROGENESIS, EMOTIONALITY AND COGNITION.*
K. M. Nautiyal and R. Silver
- 57 *CHANGES IN SLEEP QUALITY, BUT NOT HORMONES PREDICT TIME TO POSTPARTUM DEPRESSION RECURRENCE*
M. Okun, J. Luther, A. Prather, J. Perel, S. Wisniewski and K. Wisner
- 58 *INCREASED DISEASE ACTIVITY IS ASSOCIATED WITH ALTERED SLEEP ARCHITECTURE IN AN EXPERIMENTAL MODEL OF SYSTEMIC LUPUS ERYTHEMATOSUS*
B. D. Palma and S. Tufik

- 59 *NO EFFECT OF DIETARY YEAST BETA-GLUCAN ON ANTIBODY OR CELL-MEDIATED RESPONSE TO INFLUENZA VIRUS VACCINE.*
B. D. Pence, S. N. Hester, S. A. Martin, S. M. Donovan and J. A. Woods
- 60 *NEUROGENIC CONTROL OF THE CUTANEOUS STRESS RESPONSE: A YIN AND YANG EXAMPLE FOR NEURO-IMMUNE INTERACTION*
E. M. Peters, W. Snaga and C. Liezmann
- 61 *CHOLINERGIC ESTIMULATION CHANGES DENDRITIC CELL PHENOTYPE AND CYTOKINES PRODUCTION*
M. L. Pinheiro, A. Ribeiro, V. Ferraz-de-Paula, W. M. Quinteiro-Filho and J. Palermo-Neto
- 62 *MECHANISMS BEHIND PSYCHOSOCIAL STRESS-INDUCED SPONTANEOUS COLITIS IN MALE MICE*
S. O. Reber, I. D. Neumann and F. Obermeier
- 63 *ANANDAMIDE PRIOR TO SENSITIZATION INCREASES CELL-MEDIATED IMMUNITY BY INCREASING BOTH DENDRITIC CELLS CO-STIMULATORY ACTIVITY AND IFN-GAMA PRODUCTION*
A. Ribeiro, V. Ferraz-de-Paula, M. L. Pinheiro and J. Palermo-Neto
- 64 *TRAUMA BUT NOT DEPRESSION IS ASSOCIATED WITH PRO-INFLAMMATORY CYTOKINES IN PREGNANCY .*
E. Robertson Blackmore, J. Moynihan, D. Rubinow, E. Pressman, J. Walton, M. Gilchrist and T. G. O'Connor
- 65 *THE RAT ORGANUM VASCULOSUM LAMINAE TERMINALIS ACTS AS A DIRECT CENTRAL NERVOUS SENSOR FOR LPS AND PYROGENIC CYTOKINES*
J. Roth, D. Ott, S. Rafalzik, F. Wuchert, J. Murgott and R. Gerstberger
- 66 *THE RELATIONSHIP AMONG DEPRESSION AND CAREGIVER BURDEN WITH SALIVARY CORTISOL AWAKENING LEVEL IN FEMALE CAREGIVERS OF STROKE SURVIVORS*
K. L. Saban, H. L. Mathews and L. W. Janusek
- 67 *THE EFFECTS OF ALCOHOLISM PHARMACOTHERAPY ON IMMUNE RESPONSES IN ALCOHOL DEPENDENT PATIENTS*
P. Sacerdote, S. Franchi, G. Gerra, V. Leccese, M. V. Tallone, A. E. Panerai and L. Somaini
- 68 *SYSTEMIC INTERLEUKIN-2 AFFECTS INDIVIDUAL ANXIETY-RELATED SOCIAL BEHAVIOUR, GENE-TRANSCRIPTION AND METABOLITES IN THE BRAIN*
P. Schneider, W. Weber-Fahr, F. Leonardi-Essmann, R. Spanagel, A. Sartorius and C. R. Pawlak
- 69 *IN VIVO SUPPRESSION OF IL-12 PLASMA LEVELS BY VARIOUS STRESS PARADIGMS IN RATS: MULTIPLE MEDIATING NEUROENDOCRINE MECHANISMS*
L. Shaashua, M. Reznick and S. Ben-Eliyahu
- 70 *STRESS AND SKIN LEUKOCYTE TRAFFICKING: A DUAL STAGE PROCESS*
E. Neeman, L. Shaashua, M. Benish and S. Ben-Eliyahu
- 71 *THE EFFECT OF JUVENILE STRESS ON THE COURSE OF INFLAMMATION*
L. Shtoots, R. Anunu, D. Osman, A. Haim and G. Richter-Levin
- 72 *THE EFFECTS OF CORTICOTROPIN RELEASING FACTOR (CRF) AND CRF RECEPTORS ON ANTIBODY PRODUCTION*
E. M. Smith and J. Tsang
- 73 *PRO-INFLAMMATORY CYTOKINE REGULATION OF THE SEROTONIN TRANSPORTER AND SEROTONIN AUTORECEPTOR 1B IN RAT SEROTONERGIC NEURONS.*
N. Hengen and E. M. Smith
- 74 *ACUTE STRESSOR EXPOSURE SUPPRESSES THE INNATE RESPONSE TO BACTEREMIA*
K. J. Speaker, T. Maslanik and M. Fleshner

- 75 *EX-VIVO DETECTION OF COGNITION INDICATORS USING GOLD NANOPARTICLE-ANTIBODY CONJUGATES*
A. R. Stapleton, J. L. Chavez, L. Narayanan, N. Kelley-Loughnane and M. O. Stone
- 76 *EFFECTS OF ACUTE PSYCHOLOGICAL STRESS ON HUMAN NEUTROPHIL FUNCTION*
R. Khanfer, A. C. Phillips , D. Carroll and J. Lord
- 77 *FIBROBLAST-STIMULATING LIPOPEPTIDE-1 (FSL-1) INDUCES DOSE-DEPENDENT CHANGES IN LEARNING IN RATS.*
T. Swanepoel, L. M. Harden, B. H. Harvey, H. P. Laburn and D. Mitchell
- 78 *IMMUNE ADAPTATION IN THE CENTRAL NERVOUS SYSTEM IN RESPONSE TO SYSTEMIC INFECTIONS.*
U. Püntener, S. Booth, R. Reynolds, V. H. Perry and J. L. Teeling
- 79 *PSYCHOLOGICAL STRESS AFFECTS LPS-INDUCED VASCULAR INFLAMMATORY PROTEINS*
R. S. Thompson, P. V. Strong, K. Speaker, K. Marshall and M. Fleshner
- 81 *MEASURING ACUTE GVHD RELATED SYMPTOM BURDENS AND INFLAMMATORY CYTOKINES DURING THE FIRST 100 DAYS AFTER ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION*
X. Wang, S. Giralt, L. Williams, Q. Shi, G. Mobley, J. Reuben, B. Lee and C. Cleeland
- 82 *POSSIBLE REASONS FOR ADRENAL INSUFFICIENCY DURING COLLAGEN TYPE II INDUCED ARTHRITIS*
C. Wolff and R. H. Straub
- 83 *ACUTE STRESS-INDUCED IMMUNOMODULATION UPREGULATES EXPRESSIONS OF INTERFERON GAMMA RECEPTOR AND ADRENERGIC BETA-2 RECEPTOR IN NORMAL HUMAN PERIPHERAL BLOOD*
L. Xiang, K. S. Del Ben and G. D. Marshall
- 84 *INVOLVEMENT OF IL-1 AND NMDA RECEPTORS IN CENTRAL SENSITIZATION INDUCED BY A MODIFIED WIND-UP PROTOCOL*
N. Y. Ziv, M. Tal and Y. Shavit
- 85 *IL-1BETA REGULATES THE KYNURENINE PATHWAY IN HUMAN HIPPOCAMPAL NEURAL PROGENITOR CELLS*
P. A. Zunszain, C. Anacker, A. Cattaneo, L. A. Carvalho, S. Thuret, J. Price and C. M. Pariante
- 86 *PERIPHERAL CHRONIC INFLAMMATORY PAIN AND MORPHINE ANALGESIA: INVOLVEMENT OF INTERLEUKIN-1*
K. Fridel, G. Wolf, E. Nasaev, O. Brenner, S. Meilin and Y. Shavit
- 87 *BI-PHASIC CNS CYTOKINE INDUCTION AT 6 AND 24 HOURS FOLLOWING PERIPHERAL ADMINISTRATION OF LPS*
A. Olivera, D. Johnson, R. Martin, A. H. Miller and T. W. Pace
- 88 *PRELIMINARY EVIDENCE THAT BEREAVEMENT IS ASSOCIATED WITH REDUCED NEUTROPHIL FUNCTION*
R. Suliman Khanfer, A. C. Phillips , D. Carroll and J. Lord
- 89 *SICKNESS BEHAVIOUR IS INDUCED BY A CXC CHEMOKINE THAT IS ALSO EXPRESSED IN MULTIPLE SCLEROSIS AND EAE.*
S.J. Campbell, U. Meier, S. Mardiguian, Y. Jiang, E. T Littleton, A. Bristow, J. Relton, T.J. Connor, D.C. Anthony

Poster Session 2

Saturday, June 5, 2:00 – 3:30 p.m.

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■ Denotes Participation in Data Blitz Session 2

- 1 *BEHAVIOURAL DISTURBANCES OBSERVED IN EXPERIMENTAL COLITIS ARE ASSOCIATED WITH ACTIVATION OF THE KYNURENINE PATHWAY AND EXPRESSION OF HEPATIC TRYPTOPHAN 2,3 DIOXYGENASE*
A. Abautret-Daly, C. Medina, T. J. Connor and A. Harkin
- 2 *ANXIETY RELATED BEHAVIOUR IN AN ANIMAL MODEL OF EXPERIMENTAL COLITIS IS ASSOCIATED WITH A LONG-TERM SYSTEMIC AND CENTRAL INFLAMMATORY RESPONSE*
A. Abautret-Daly, C. Medina, T. J. Connor and A. Harkin
- 3 *CD8+ T CELL FUNCTION IN CHILDREN WITH AUTISM*
P. Ashwood, J. Van de Water and A. Enstrom
- 4 *DETERMINATION OF T-CELL SUBPOPULATIONS IN CSF AND PERIPHERAL BLOOD IN PATIENTS WITH AFFECTIVE AND SCHIZOPHRENIC SPECTRUM DISORDERS TO ASSESS IMMUNOSURVEILLANCE AND TO APPLY AS A DIAGNOSTIC APPROACH*
K. Bechter, H. Maxeiner, M. Rojewski, A. Schmitt, H. Tumani and M. Schmitt
- 5 *IDENTIFICATION OF A MATERNAL ANTIBODY TARGET IN AUTISM*
D. Braunschweig, P. Ashwood and J. Van de Water
- 6 *REDUCED ADIPOSE TISSUE HYPOXIA AS A POTENTIAL MECHANISM BY WHICH EXERCISE AND/OR LOW FAT DIET REDUCES INFLAMMATION IN OBESE MICE.*
M. Cady, J. A. Woods, T. Baynard, K. R. Wilund, R. J. Valentine, S. A. Martin, F. Cortez and B. D. Pence
- 7 *CYTOKINE PROFILE IN TREATMENT-RESISTANT DEPRESSION: ASSOCIATION WITH PSYCHOPATHOLOGY*
L. A. Carvalho, A. J. Cleare and C. M. Pariante
- 8 *INFLAMMATORY AND NEUROTROPHIC FACTORS UNBALANCE IN LEUKOCYTES OF FIRST EPISODE PSYCHOSIS PATIENTS*
A. Cattaneo, V. Mondelli, P. Dazzan, M. Belvederi Murri, M. Di Forti, R. Ohlsen, M. Gennarelli, K. J. Aitchison, R. M. Murray and C. M. Pariante
- 9 *PREDICTIVE MODELING OF PROSPECTIVE IL-6 IN OLDER ADULTS, BASED ON PERSONALITY PHENOTYPE*
B. Chapman, P. Duberstein, N. Talbot and J. Moynihan
- 10 *THE IMPACT OF ACUTE HYPOXIA ON LEARNING AND MEMORY*
G. Chiu, D. Chatterjee, R. W. Johnson and G. G. Freund
- 11 *GENDER-DEPENDENT INFLUENCE OF THE GUT MICROBIOME ON THE HIPPOCAMPAL 5-HT SYSTEM*
G. Clarke, S. Grenham, P. Scully, P. Fitzgerald, C. M. O'Mahony, D. P. McKernan, M. Tramullas, F. Shanahan, T. G. Dinan and J. F. Cryan
- 12 *PSYCHOSOCIAL AND LIFE STYLE INFLUENCES ON THE GENETICS OF INFLAMM-AGING IN OLDER HUMANS*
C. L. Coe, G. Love, J. A. Morozink, E. M. Friedman and C. D. Ryff

- 13 *SYNERGISTIC CNS ANTI-INFLAMMATORY ACTIONS OF COMBINED TREATMENT WITH THE BETA2-ADRENOCEPTOR AGONIST CLENBUTEROL AND THE GLUCOCORTICOID DEXAMETHASONE*
E. W. Griffin, K. J. Ryan and T. J. Connor
- 14 *LONGITUDINAL ASSESSMENT OF HIPPOCAMPAL GROWTH IN YOUNG PIGS*
M. S. Conrad, R. N. Dilger and R. W. Johnson
- 15 *PSYCHONEUROIMMUNE CONTRIBUTIONS TO POSTPARTUM DEPRESSION*
E. Corwin, K. Pajer, B. Stafford and D. McCarthy
- 16 *A CRITICAL BALANCE BETWEEN ALLERGEN-SPECIFIC IGE LEVELS AND TASTE PREFERENCE DURING FOOD AVERSION*
L. Mirotti, D. Mucida, L. D. Sá-Rocha, F. A. Costa-Pinto and M. Russo
- 17 *BEHAVIORAL EFFECTS OF LPS IN ADULT, MIDDLE-AGED AND AGED MICE*
D. Kinoshita, D. W. Cohn, F. A. Costa-Pinto and L. C. Sá-Rocha
- 18 *A CD200 FUSION PROTEIN EXERTS ANTI-INFLAMMATORY ACTIONS IN VITRO AND IN VIVO.*
F. F. Cox, A. M. Miller, A. Lyons and M. A. Lynch
- 19 *A β - AND AGE-INDUCED IMPAIRMENT IN LTP IS REVERSED BY A CD200 FUSION PROTEIN.*
F. F. Cox, A. M. Miller, A. Lyons, A. Lyons and M. A. Lynch
- 20 *IMMUNOLOGIC ABNORMALITIES ASSOCIATED WITH MANIA*
F. Dickerson
- 21 *MECHANISMS BY WHICH INTERLEUKIN-1 ACTIVATES THE HPA AXIS.*
A. J. Dunn, M. Wieczorek and A. H. Swiergiel
- 22 *OXYTOCIN SPEEDS WOUND HEALING IN STRESSED MICE*
L. Yang, S. Carter, P. T. Marucha and C. G. Engeland
- 23 *ANTI-INFLAMMATORY ACTIVITY OF PSEUDOEPHEDRINE*
B. L. Fiebich, F. J. Caballero, J. A. Collado, T. Rose, E. Muñoz and M. L. Bellido
- 24 *SYSTEMIC CHALLENGE WITH THE TLR3 AGONIST POLY I:C INDUCES AMPLIFIED IFN- α/β AND IL-1 β RESPONSES IN THE DISEASED BRAIN AND EXACERBATES CHRONIC NEURODEGENERATION.*
R. Field, S. Champion, C. Warren, C. Murray and C. Cunningham
- 25 *DIURNAL CORTISOL LEVELS PREDICT IMPROVEMENT IN FUNCTIONAL OUTCOMES IN OLDER ADULTS IN A POST-ACUTE REHABILITATION SETTING*
L. Fiorentino, D. Saxbe, K. Josephson, S. Jouldjian, C. A. Alessi and J. L. Martin
- 26 *FROM CANCER DIAGNOSIS THROUGH TREATMENT: TRAJECTORY OF CHANGE IN PSYCHOLOGICAL WELL-BEING, DECISION-MAKING, AND CIRCULATING CORTISOL LEVELS*
K. Fische, D. Tell, L. Janusek and H. L. Mathews
- 27 *ACTIVATION OF THE IMMUNE SYSTEM WITH RESPECT TO TRAIL MAKING TEST (TMT) PERFORMANCE IN SCHIZOPHRENIA.*
D. Frydecka, L. Karabon, E. Pawlak, A. Beszlej and A. Kiejna
- 28 *PNI SYSTEMS BIOLOGY: COMPUTATIONAL PREDICTION OF NOVEL INTERACTIONS OF INFLAMMATORY PROTEINS WITH ACCURACY ON-PAR WITH EXPERIMENTAL METHODS*
M. K. Ganapathiraju and T. P. Mohamed
- 29 *EFFECTS OF ELICITED STATE ANGER, HAPPINESS, AND SADNESS ON SERUM IL-6, IL-10, AND CORTISOL RESPONSES TO PAIN AMONG RHEUMATOID ARTHRITIS PATIENTS*
J. E. Graham, S. Song, L. C. Klein, D. Wagstaff and C. A. Whetzel
- 30 *DEPRESSIVE MOOD IS CORRELATED WITH INCREASED IL-6 AND IL-1RA BEFORE BUT NOT AFTER AN ACUTE EXERCISE STRESSOR*
J. Hallam, Y. Sim, J. Darling, N. Thompson, K. Warren and M. Kohut

- 31 *DIURNAL CORTISOL PATTERNS ARE ASSOCIATED WITH DELETERIOUS IMMUNE ACTIVATION IN HIV*
F. M. Hecht, S. Patterson, P. Moran, E. Epel, E. Sinclair, M. Acree, P. Bacchetti, S. G. Deeks, C. Kirschbaum, S. Folkman and M. Kemeny
- 32 *NEUROIMMUNOLOGICAL CHARACTERISTICS OF BTBR T+TF/J MICE, A STRAIN WITH AUTISM-LIKE BEHAVIOR*
Y. Heo, H. Kim and D. A. Lawrence
- 33 *INTERLEUKIN-6 IN PEOPLE WITH AND WITHOUT DEPRESSION: EXPLORING MODERATORS USING META-ANALYTIC TECHNIQUES*
S. A. Hiles, J. Attia and A. L. Baker
- 34 *GENDER DIFFERENTIALLY INFLUENCES THE IMPACT OF NEONATAL AND SUBSEQUENT ADULT STRESS ON GUT INTEGRITY*
J. Barouei, M. Adams and D. Hodgson
- 35 *DEPRESSIVE SYMPTOM CHARACTERISTICS AND MEMORY T CELL ACTIVATION IN RESPONSE TO A PHYSICAL CHALLENGE IN HEART FAILURE PATIENTS*
S. Hong, L. Redwine, T. Rutledge, B. Greenberg and P. J. Mills
- 36 *SOMATIC SYMPTOMS OF DEPRESSION AND PRO-INFLAMMATORY MARKERS IN HEART FAILURE (HF)*
L. Redwine, S. Hong and P. J. Mills
- 37 *INFLAMMATORY GENE EXPRESSION PROFILE IN TREATMENT RESISTANT DEPRESSION*
M. M. Hughes, R. Dunne, M. Noone, D. M. McLoughlin and T. J. Connor
- 38 *AUGMENTED TRAUMA WRITING EFFECTS HIV SYMPTOMS AND VL IN WOMEN WITH PTSD AND HIV*
G. Ironson, C. O'Cleirigh, J. Leserman, J. Fordiani, E. Balbin, N. Schneiderman and M. Fletcher
- 39 *A SOLUBLE FIBER DIET INDUCES IMMUNOMODULATION IN THE LIVER*
J. J. Joesting, D. N. Lavin, N. A. Blevins, L. K. McNeil, B. L. Tisza and G. G. Freund
- 40 *ENVIRONMENT ENRICHMENT EFFECTS ON NEUROINFLAMMATION AND SPATIAL WORKING MEMORY AFTER ACTIVATION OF THE PERIPHERAL INNATE IMMUNE SYSTEM*
E. M. Johnson and R. W. Johnson
- 41 *NEUROINFLAMMATION AND COGNITIVE IMPAIRMENT IN A MOUSE MODEL OF INFLUENZA*
H. A. Jurgens and R. W. Johnson
- 42 *THE EFFECT OF A SHORT COURSE HIGH-FAT DIET ON BEHAVIOR IN JUVENILE MICE*
M. M. Kaczmarczyk, S. Machaj, M. J. Miller and G. G. Freund
- 43 *STRESS-LIKE CRF1 RECEPTOR SIGNALING: ANTI-INFLAMMATORY IMMUNE CONDITIONING AND ALTERED TIGHT JUNCTION PROTEIN EXPRESSION IN THE PROXIMAL COLON OF FEMALE BALB/C MICE*
C. Kiank, M. Larauche, G. Domanska, P. Yuan, M. Million and Y. Taché
- 44 *THE IMPACT OF CATECHOLAMINES AND SEX HORMONES ON GROWTH AND REPULSION OF SYMPATHETIC NERVE FIBERS*
S. Klatt, A. Fassold and R. H. Straub
- 45 *INCREASED PREGNANCY COMPLICATIONS ARE CORRELATED WITH LOWER LEVELS OF SOCIAL SUPPORT FROM MEDICAL PERSONNEL AND PARTNERS IN LESS ACCULTURATED LATINO-WOMEN*
M. O. Kreither, S. Cole, C. Brandt, M. Lobel and M. Coussons-Read
- 46 *IMMUNOREACTIVITY AND OXIDATIVE STRESS PARAMETERS IN ANIMALS SUBJECTED TO CHRONIC MILD STRESS MODEL OF DEPRESSION*
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- 47 *ANTIOXIDANT ACTIVITY OF FLUOXETINE: STUDIES IN MICE MELANOMA MODEL*
M. Kubera, M. Kirkova, E. Tzvetanova, S. Vircheva, R. Zamfirova, M. Leskiewicz and B. Grygier
- 48 *OPPOSITE EFFECT OF FLUOXETINE TREATMENT ON C26 MURINE COLON CARCINOMA LIVER METASTASIS FORMATION AND B16F10 MELANOMA GROWTH*
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- 49 *ECCENTRIC EXERCISE AS AN ADJUVANT TO HEPATITIS B AND MENINGITIS ACWY VACCINATIONS*
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- 50 *BETA-ADRENERGIC RECEPTORS, cAMP AND PROANGIOGENIC FACTOR PRODUCTION BY BREAST CANCER CELL LINES*
K. S. Madden, M. J. Szpunar, K. M. Fitzgerald and E. B. Brown
- 51 *CORTISOL LEVELS IN A LARGE POPULATION BASED SURVEY OF ADOLESCENTS: DEMOGRAPHIC AND CLINICAL CORRELATES*
A. H. Marques, J. He, C. Fix, M. Pato, R. Duncko, M. Burstein, G. Chrousos and K. R. Merikangas
- 52 *DIET-INDUCED OBESITY DOES NOT EXACERBATE THE PEAK PERIPHERAL AND CENTRAL INFLAMMATORY RESPONSE TO LPS IN C57/BL6J MICE.*
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- 53 *FATIGUE AND AWAKENING CORTISOL PREDICT DEPRESSIVE RISK IN WOMEN NEWLY DIAGNOSED WITH BREAST CANCER*
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- 54 *CENTRAL ADMINISTRATION OF INSULIN-LIKE GROWTH FACTOR-I DECREASES DEPRESSIVE-LIKE BEHAVIOR AND NEUROINFLAMMATION IN MICE*
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- 55 *ENHANCED IMMUNE ACTIVATION IN ADULTHOOD FOLLOWING CHILDHOOD TRAUMA: A ROLE FOR TOLL-LIKE RECEPTORS.*
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- 56 *SICKNESS BEHAVIOR AND CYTOKINE EFFECTS OF A VIRAL MIMETIC IN AGED MICE*
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- 57 *INTERLEUKIN 6 CONTRIBUTES TO SEX-SPECIFIC DEVELOPMENTAL AND AGING-RELATED ABNORMALITIES IN WHITE MATTER SYNTHESIS: RELEVANCE TO RISK OF AUTISM AND DEMENTIA.*
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- 58 *DISRUPTION OF THE HPA AXIS THROUGH DOWN-REGULATION OF GLUCOCORTICOID RECEPTOR EXPRESSION IN T CELLS OF HIV-1-INFECTED PATIENTS AS A MECHANISM OF CHRONIC IMMUNE ACTIVATION*
J. M. Milush, V. A. York, M. Acree, M. E. Kemeny, D. F. Nixon and F. M. Hecht
- 59 *PHENOTYPIC CHARACTERIZATION OF DIET-INDUCED OBESE MICE IN THE FED AND FASTED STATES*
D. Lavin, J. Joesting, G. Chiu, M. Moon and G. Freund
- 60 *LIGHT AT NIGHT INFLUENCES IMMUNE FUNCTION*
R. J. Nelson, J. C. Walton, L. K. Fonken and T. A. Bedrosian
- 61 *ABERRANT BEHAVIOURAL AND PHYSIOLOGICAL RESPONSES TO A SYSTEMIC IMMUNE CHALLENGE IN A RAT MODEL OF BRAIN-GUT AXIS DYSFUNCTION*
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- 62 *BDNF EXPRESSION IN RESPONSE TO ACADEMIC STRESS IN ASTHMATIC AND HEALTHY SUBJECTS*
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- 64 *ODOR CUES FROM TUMOR-BEARING MICE INDUCES NEUROIMMUNE CHANGES*
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- 65 *HAMSTERS INFECTED WITH THE HOOKWORM, ANCYLOSTOMA CEYLANICUM, SHOW PRE-ANEMIA CHANGES IN BEHAVIOR.*
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- 66 *IL-6 IS ASSOCIATED WITH METABOLIC SYNDROME IN BIPOLAR DISORDER*
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- 67 *IL-1R3: A NEURONAL SPECIFIC IL-1 RECEPTOR?*
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- 68 *PNI AND CARDIOMETABOLIC RISK IN WOMEN*
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- 69 *BREAK-DOWN OF PERIPHERAL IMMUNE SUPPRESSION RESTORES COGNITIVE ABILITY IN AGED MICE*
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- 70 *THE EFFECTS OF CHRONIC IMMUNE STIMULATION ON CENTRAL AND PERIPHERAL LEVELS OF OXYTOCIN AND VASOPRESSIN.*
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- 71 *MELANCHOLIA IS CHARACTERISED BY INCREASED IL-6 AND DECREASED TGF-BETA COMPARED TO HEALTHY CONTROLS*
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- 72 *TOWARDS A STRESS-INDUCED MOUSE MODEL OF IRRITABLE BOWEL SYNDROME*
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- 73 *A COMPARATIVE STUDY OF CNS EFFECTS OF LPS AND PRO-INFLAMMATORY CYTOKINES*
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- 74 *JOINT INFLUENCES OF ATOPIC DERMATITIS SEVERITY, INFLAMMATORY BIOMARKERS, AND QUALITY OF LIFE ON ADOLESCENT DEPRESSION AND ANXIETY*
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- 75 *CYTOKINE ALTERATIONS IN THE NEUREGULIN-1 KNOCKOUT MOUSE MODEL OF SCHIZOPHRENIA*
P. Snikeris, X. Huang and E. Frank
- 76 *DEGREE OF EMOTIONAL ACTIVATION IS AN IMPORTANT CONSIDERATION IN EXPLORING THE RELATION BETWEEN TRAIT POSITIVE AND NEGATIVE AFFECTIVITY AND CORTISOL IN PERSONS LIVING WITH HIV DISEASE.*
K. E. Stewart, K. W. Brown and N. L. McCain
- 77 *ALTERED VENTRICULAR ZONE IN THE FOETAL CORTEX FOLLOWING MATERNAL INFLAMMATION*
H. B. Stolp, Z. Molnar and D. C. Anthony
- 78 *EVIDENCE FOR SYMPATHETIC NERVOUS SYSTEM REGULATION OF BREAST CANCER PATHOGENESIS*
M. J. Szpunar, K. S. Madden, K. M. Liverpool and E. B. Brown

- 79 *PSYCHONEUROIMMUNOLOGY AND TREATMENT DECISION MAKING IN WOMEN DIAGNOSED WITH DUCTAL CARCINOMA IN SITU*
D. Tell, K. Fishe, H. L. Mathews and L. Janusek
- 80 *CHRONIC PSYCHOLOGICAL STRESS IMPAIRS IMMUNE SYSTEM AS WELL AS OBJECT AND SPATIAL MEMORY IN A WATER AVOIDANCE STRESS (WAS) MOUSE MODEL*
E. Vazquez, A. Barranco, A. Díaz, M. J. Martín, M. Gallo, M. Ramírez and R. Rueda
- 81 *THE NOD MOUSE MODEL FOR IMMUNE INDUCED DEPRESSIVE-LIKE BEHAVIOUR.*
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- 82 *MODELING SYMPTOMS OF CHEMOTHERAPY: BORTEZOMIB AND 5-FLUOROURACIL INDUCE SICKNESS IN MICE*
E. G. Vichaya, J. L. Cook, M. A. Frazier, E. E. Young and M. W. Meagher
- 83 *EPIGENETIC INHERITANCE OF ANXIETY*
A. K. Walker, G. Hawkins and D. M. Hodgson
- 84 *HIPPOCAMPAL IL-1 β BUT NOT TNF- α OR IL-6 IS UPREGULATED FOLLOWING NEONATAL LPS AND ADULT STRESS EXPOSURE.*
A. K. Walker, T. Nakamura and D. M. Hodgson
- 85 *VENTILATED CAGING SYSTEMS CAN AFFECT MOUSE BEHAVIOR.*
J. M. York, A. W. McDaniel, N. A. Blevins, R. R. Guillet, S. O. Allison and G. G. Freund
- 86 *ANTI-STREPTOCOCCUS IGM ANTIBODIES INDUCE STEREOTYPIC BEHAVIORS AND PROFOUNDLY INCREASE C-FOS EXPRESSION IN CORTICO-STRIATAL REGIONS*
D. Zhang, A. Siegel and S. Zalcman
- 87 *PRELIMINARY DATA ON HLA-DR TYPES IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER AND BIPOLAR AFFECTIVE DISORDER*
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- 88 *INTERLEUKIN-1BETA AND GSK-3BETA REGULATE EXPRESSION OF THE NUCLEAR RECEPTOR TLX IN HIPPOCAMPAL NEURAL STEM CELLS*
H. F. Green, S. Ryan and Y. M. Nolan
- 89 *PSYCHOSOCIAL STRESSOR-INDUCED PLASMA CORTISOL CONCENTRATIONS PREDICT STRESSOR-INDUCED PLASMA IL-6 CONCENTRATIONS IN PATIENTS WITH MAJOR DEPRESSION AND INCREASED EARLY LIFE STRESS.*
T. Pace, T. M. Mletzko, B. Bonsall, G. J. Vogt, A. H. Miller and C. M. Heim