

International Society for Developmental Psychobiology

37th Annual Meeting,

June 25-June 28, 2004

Aix-en-Provence, France

FRIDAY EVENING, JUNE 25TH

4:30-7:15 Registration: Centre des Congrès

**7:15-9:00 Registration and Welcome Reception
(Centre des Congrès, salle Picasso)**

(Snacks and non-alcoholic beverages, cash bar for alcoholic drinks)

SATURDAY JUNE 26TH

8:00-8:30 Continental Breakfast and Coffee

**8:30-10:30 SYMPOSIUM: Variability and Plasticity in Perinatal
Motor Development**

SUPPORTED BY SACKLER INSTITUTE AND NICHD

Organizer: Scott R. Robinson

THE ROLE OF MOTOR AND VISUAL EXPERIENCE DURING LOCOMOTOR
DEVELOPMENT

G. Muir, University of Saskatchewan

ACTION AND EXPERIENCE DURING PERINATAL MOTOR
DEVELOPMENT IN THE RAT.

S. R. Robinson, University of Iowa

DEVELOPMENT OF LOCOMOTION IN THE RAT: SPINAL CORD
PLASTICITY UNDER SUPRASPINAL INFLUENCES.

L. Vinay, F. Ben-Mabrouk, F. Clarac, C. Jean-Xavier, E. Pearlstein,
J-F. Pflieger, CNRS, Marseille,

DOES EMBRYONIC MOVEMENT EXPERIENCE SHAPE PRECOCIOUS
LOCOMOTION IN THE CHICK?

N. S. Bradley, Univ. Southern California

10:30-10:45 Morning Break

10:45-12:00 Oral Session 1

Chair: Pierre Roubertoux

10:45 EFFECTS OF ALCOHOL EXPOSURE DURING PREGNANCY ON
NEWBORN AUTONOMIC FUNCTION

W.P. Fifer, M.M. Myers, K. Bang, E. Gribben, S. Ten Fingers,
M. Youngman

11:00 THE FIRST RELATIONSHIP: FETAL RESPONSE TO MATERNAL STRESS IN
UTERO PREDICTS MOTHER-CHILD INTERACTION DURING EARLY
CHILDHOOD

J. A. Dipietro

11:15 ABNORMAL REGULATION OF CORTISOL CIRCADIAN RHYTHMS AND THE
RESPONSE TO STRESS IN CHILDREN WITH AUTISM

B.A. Corbett, S. Mendoza, S. Levine,

11:30 GENDER DIFFERENCES REVISITED: EVIDENCE FROM THE NICU

B.Z. Karmel, J.M. Gardner, R. Geva, A. Harin, A. Barone

11:45 DEVELOPMENTAL EVOLUTIONARY PSYCHOBIOLOGY

J. Robert

Noon- 1:15 LUNCH BOARD MEETING FOR ISDP OFFICERS

1:15-3:15 SYMPOSIUM: Brain Imaging and Development

Organizer: Patrick J. Cozzone, CRMBM-CNRS, Faculty of Medicine, Marseille

INTRODUCTORY REMARKS ON MULTIMODAL BRAIN IMAGING

P. J. Cozzone, CRMBM-CNRS

HUMAN BRAIN DEVELOPMENT AS SEEN THROUGH THE MRI WINDOW

C. R. Almlı, Washington University Medical School

FOETAL BRAIN MRI: TECHNICAL ADVANCES

N. Girard, University Hospital, Marseille

MRI/MRS STUDIES OF RODENT MODELS OF BRAIN PATHOLOGIES

A. Viola, CRMBM-CNRS, Faculty of Medicine Marseille

MRI STUDIES OF A PRIMATE MODEL OF BRAIN AGING

M. Dhenain Institut Curie – Inserm, Orsay

3:15-3:30 Afternoon Break

3:30 -4:30 Oral Session 2

Chair: Lorraine Bahrık

3:30 RELATIONSHIP BETWEEN MATERNAL BEHAVIOR OF LEWIS AND FISCHER
DAMS AND MRNA FOR GLUCOCORTICOID RECEPTOR ISOFORMS IN THEIR
OFFSPRING

W. Shoemaker, J. Covault, M. Hornberger,

- 3:45 EFFECT OF RESOURCE AVAILABILITY ON BIPARENTAL CARE, AND OFFSPRING BEHAVIORAL DEVELOPMENT IN THE MONOGAMOUS CALIFORNIA MOUSE
T.W. Bredy*, J.M. O Reilly, R.E. Brown, M.J. Meaney
***NIH Travel Awardee**
- 4:00 EARLY WEANING AND ISOLATION INTERACT TO INCREASE ANXIETY AND SOCIAL INTERACTION IN ADULT RATS.
N. Ferdman, K. Braun, J. Bock, M. Leshem
- 4:15 CONTRIBUTIONS OF HIGH AND LOW AMPLITUDE MOTOR ACTIVITY TO INTERLIMB MOVEMENT SYNCHRONY IN THE RAT FETUS AFTER EXPOSURE TO METHYLAZOXYMETHANOL
G.A. Kleven*, R.A. Fleenor, S.R. Robinson
***NIH Travel Awardee**
- 4:30-5:30 PRESIDENTIAL ADDRESS:** Robert Lickliter
ENCOUNTERING THE WORLD: PRENATAL SENSORY EXPERIENCE GUIDES AND CONSTRAINS PERCEPTUAL LEARNING AND DEVELOPMENT
Chair: Mark Stanton
- 5:30-7:30 Poster Session I (Cash Bar)**
- #1 Suckling, Rather Than Tactile, Stimulation Determines Duration of Mother-Young Contact in Rabbits.
G. González-Mariscal, E. Cuamatzi
- #2 Consequences of Crowding On Open-Field Behavior and the Social Development in Male Rats
H. Arakawa
- #3 Do Dams From Selectively Bred Lines Show Differential Maternal Aggression, Maternal Behavior, and Anxiety-Like Behaviors?
H. L. Kline*, K. E. Hood
***NIH Travel Awardee**
- #4 Infant Cradling Biases and Hemispheric Specializations For Emotions
J. Donnot, J. Vauclair
- #5 Is There a Relation Between Motor Development and Cognitive Development in Human Infants?
J. Gross*, H. Hayne
***NIH Travel Awardee**
- #6 Serial Reversal Learning Deficits in a Rodent Model of Autism.
J.G. Frank*, D.J. Watson, M.E. Stanton
***NIH Travel Awardee**
- #7 An Ontogenetic Analysis of Interstimulus Interval (ISI) Discrimination of the Eyeblink Conditioned Response (CR)
K.L. Brown*, J.H. Pagani, M.E. Stanton
***NIH Travel Awardee**
- #8 Early Emotional Experiences Influence the Development of Distinct Interneuron Subpopulations in the Rodent Hippocampus
K. Becker, C. Helmeke, K. Braun
- #9 The Development of Infants' Discrimination of Tempo in Unimodal and Bimodal Stimulation
L. Bahrick, R. Lickliter, L. Batista, M. Vaillant
- #10 The Development of Infants' Sensitivity to the Orientation of Object Motion: Predictions of the Intersensory Redundancy Hypothesis
L. Bahrick, R. Lickliter
- #11 Ontogeny of Fear Reactions to Object and to Human in Anglo-Arab and Welsh Foals
L. Lansade, F. Lévy, M.F. Bouissou
- #12 The Odour of Human Milk: Stability of Its Attractiveness in the Human Newborn
L. Marlier, A. Couegnas, B. Schaal
- #13 Growing Up Without Basal Forebrain Cholinergic Neurons: Effects On Rat Neonatal Behaviour
L. Ricceri, M.L. Scattoni, G. Calamandrei
- #14 Early-Life Intracerebroventricular Application of Saline But Not Metabotropic Glutamate Receptor Agonist Induces Long-term Behavioral Alteration
M. Alaverdashvili*, J. Kaminskij, J. Folbergrova, R. Haugvicova, H. Kubova, P. Mares
***NIH Travel Awardee**
- #15 Passive Responses of Guinea Pig Offspring to Maternal Separation: Effects of Age and the Presence of An Unfamiliar Female
M.B. Hennessy, A. Morris

- #16 Early Sensorimotor Integration in the Rat Whisking System
M.S. Landers*, H.P. Zeigler
***NIH Travel Awardee**
- #17 The Role of Sensory Preconditioning in Associative Learning in Older Infants
P. Muentener, R. Barr, D. Mccadden
- #18 Amount of Prenatal Visual Experience Affects Neural Plasticity and Postnatal Visual Responsivity in Bobwhite Quail Chicks
R. Lickliter, R. Carlsen, R. Markham
- #19 Pre-Weanling Sensorial and Motor Development in Mice Carrying HSA21 Fragments Covering the Down Syndrome Chromosomal Region (DCR-1)
P.L. Roubertoux, M. Jamon, Z. Bichler, D. Migliore-Samour
- #20 Spinal Transection Reduces But Does Not Eliminate Alternated Hindlimb Activity During Interlimb Yoke Training in the Neonatal Rat
S. A. Woller*, G. A. Kleven, S. R. Robinson
***NIH Travel Awardee**
- #21 Relationship Between Maternal Areolar Glands and Neonatal Growth in Humans: a Replication.
S. Doucet, R. Soussignan, B. Schaal
- #22 In Search of a Sensitive Period For Olfactory-Guided Huddling Preferences in Rat Pups
S. Kojima*, J. R. Alberts
***NIH Travel Awardee**
- #23 Fetal Alcohol Alters Cerebellar Neurochemistry: High-Resolution Magic Angle Spinning 1h Magnetic Resonance Spectroscopy (Hr-Mas 1h Mrs) At 11.7t
S. O. Leary-Moore*, T.R. Mitchell, A. McMechan, S. Mathison, G.J. Moore, M.P. Galloway, J.H. Hannigan
***NIH Travel Awardee**
- #24 Yoke Training of a Forelimb-Hindlimb Pair Reveals Interlimb Dynamics As Well As Motor Learning in the Rat Fetus
S. R. Robinson, S. M. Hynes, M. R. Brumley
- #25 Stress-Induced Hyperactivity in Trumpet-Tailed Rats (Octodon Degus): Effects of Methylphenidate Treatment On Behavior and Brain Activity
S. Zehle, J. Bock, G. Jezierski, K. Braun
- #26 Cortisol Reactivity, Emotional Expression, and the Late Adolescent Transition to College
S.E. Gans, S. Kerr, V. K. Johnson
- #27 Behavioral and Neurochemical Vulnerability During Adolescence in Mice: Studies With Nicotine
W. Adriani*, O Granstrem, S Macri, G Izykenova, S Dambinova, G Laviola
***NIH Travel Awardee**
- #28 Infant Distress Vocalizations and Parental Reactions Observed Among 3-Month-Olds From the US, Canada, Germany, Latin America, and Central Africa
A. Schoelmerich
- #29 Empirical and Factorial Validation Study of the “Sensations During Pregnancy and Life Events Questionnaire”
S. Tordjman, C. Granier-Deferre, D. Cabrol, C. Cappelle, D. Dallay, S. Duchesne, N. Ferre, R. Graignic, A-Y. Jacquet, M. Jylinskaya, S. Lebreton, E. Le Gall, D. Misdrahi, A. Ribeiro, J. Sizun, A.L. Sutter, H. Verdoux
- #30 Chronic Methylphenidate during Postnatal Development Produces D2 Receptor Alterations
S.L. Andersen, A.P. Thompson, E. Krenzel, M.H. Teicher
- #31 Enduring Within Litter Effects of Early Stress on Locomotor Activity and Monoamine Neurotransmitters.
M. H. Teicher, S. L. Andersen
- #32 Food Restriction During Pregnancy in Rats: Effects On Physiology and Feeding Behavior in Adult Offspring
M.M. Myers, A.Y. Tu, S.A. McCleod, P A. Graham
- #33 Altered Behaviour Patterns in Neonate and Adolescent Rats Following C-Section Birth With or Without Acute Global Asphyxia
A. Venerosi, D. Cutuli & G. Calamandrei

SUNDAY JUNE 27TH

8:00-8:30 Continental Breakfast and Coffee

8:30-10:30 SYMPOSIUM: Impact of Infant Experiences on Emotional and Limbic System Development

SUPPORTED BY NICHD

Organizers: Katharina Braun and Regina Sullivan

EARLY EMOTIONAL MEMORIES: IT'S ALL IN THE BRAIN ?

Katharina Braun, University Magdeburg

PRENATAL IMMUNE CHALLENGE DURING MID-PREGNANCY IN MICE: ADULT OFFSPRING BEHAVIOURAL CONSEQUENCES RELATED TO ANIMAL MODELS OF SCHIZOPHRENIA.

U. Meyer, B. K. Yee, J. Feldon, Swiss Federal Institute of Technology

JUVENILE STRESS IMPAIRS ADULTHOOD AVOIDANCE LEARNING IN RATS

M.M. Tsoory, G. Richter-Levin, G., University of Haifa

CORTICAL AND LIMBIC SENSORY PROCESSING DURING ONTOGENY

D. Wilson, University of Oklahoma

10:30-10:45 Morning Break

10:45-12:00 Oral Session 3

Chair: Gabriel Gonzalez-Mariscal

10:45 THE NIH MRI STUDY OF NORMAL BRAIN DEVELOPMENT

C.R. Almlı, L. Freund

11:00 LONG-TERM MEMORY FOR AN ODOR ASSOCIATED WITH BREAST-FEEDING IN HUMAN INFANTS

M. Delaunay-El Allam, L. Marlier, B. Schaal

11:15 DIFFERENCES IN 16- AND 30-WEEK OLD HUMAN INFANTS ATTENTION TO EMOTIONAL INFORMATION IN ADULT SPEECH

R. P. Cooper, C. Kitamura, K. Mattock, D. Burnham

11:30 HUMAN FETAL RESPONSES TO DIFFERENT SOUND CATEGORIES

C. Granier-Deferre, A. Ribeiro, a-Y. Jacquet, A.J. DeCasper

11:45 THE BUILDING OF OLFACTORY KNOWLEDGE: A DEVELOPMENTAL APPROACH

S. Monnery-Patris, C. Rouby, S Nicklaus, S. Issanchou,

Noon- 1:30 BUSINESS MEETING FOR ALL ISDP MEMBERS LUNCH

1:30-1:45 **Sandra G. Weiner Award**

Yael Lavi-Avnon, Bar-Ilan University,

Sponsor: Aron Weller

POSSIBLE ROLE FOR ANHEDONIA IN THE DIFFERENT PATTERNS OF MATERNAL BEHAVIOR EXPRESSED BY FLINDERS SENSITIVE LINE (FSL) DAMS

1:45-2:00 **Sandra G. Weiner Award**

Andrea Gonzalez, Univ. Toronto,

Sponsor: Alison Fleming

POSTPARTUM DEPRESSION IS RELATED TO SALIVARY CORTISOL, MATERNAL RESPONSIVENESS AND EARLY CHILDHOOD FAMILY INSTABILITY

2:00-2:40 NIH TRAVEL AWARD 5 MINUTE PRESENTATIONS.

Muller, J.

Columbia

Sponsor: Harry Shair

Olazabal, D.

Emory Univ,

Sponsor: Larry Young

Rao, S.

Columbia Univ,

Sponsor: Jay Gingrich

Shafer, K.

Depaul Univ,

Sponsor: George Michel

Woller, S.

Univ, Iowa

Sponsor: Scott Robinson

Yap, C.

Univ. New South Wales

Sponsor: Rick Richardson

2:40 -3:00 Afternoon Break

3:00-4:45 ORAL SESSION 4

Chair: R. Nowak

3:00

SUCKLING SIGNALS IN RABBITS: LEARNED ODOR CUES AND A PHEROMONE

G. Coureaud, D. Langlois, B. Schaal

3:15

ORAL AND GASTROINTESTINAL REWARDING EFFECTS OF SUCKLING ON THE DEVELOPMENT OF FILIAL BONDING IN LAMBS

R. Nowak, D. Val-Laillet, M. Simon

3:30

SOCIO-SPATIAL FACTORS AND THE DEVELOPMENT OF MOTHER PREFERENCE IN LAMBS

D. Val-Laillet, R. Nowak

3:45

TRACE CONDITIONING MEASURED WITH FEAR-POTENTIATED STARTLE: TEMPORAL ENCODING IN THE DEVELOPING RAT

P. S. Hunt

- 4:00 THE INTER-LITTER EFFECT: MATERNALLY MEDIATED INTERACTIONS OF SIBLINGS IN SUCCESSIVE LITTERS
M.M. Clark, B. G. Galef Jr
- 4:15 SELECTIVE BREEDING FOR HIGH OR LOW AGGRESSIVE BEHAVIOR IN MICE: EFFECTS OF RELAXING SELECTION AFTER 30 GENERATIONS.
K. E. Hood, J-L. Garipey, D. L. Nehrenberg, H. L. Kline
- 4:30 ONTOGENY OF BEHAVIORAL INHIBITION INDUCED BY THE ODOR OF AN UNFAMILIAR ADULT MALE CONSPECIFIC AND ABSENCE OF MATERNAL POTENTIATION IN THE MOUSE
I. Branchi, D. Santucci, E. Alleva

4:45-6:00 NIH TRAVEL AWARD 5 MINUTE PRESENTATIONS.

- | | | |
|--------------------|-----------------------------|------------------------|
| Adriani, W. | Istituto Superiore Di Sante | Sponsor: G. Laviola |
| Alaverdashvili, M. | Czech. Acad Sci | Sponsor: H Kubova |
| Braw, Y. | Bar-Ilan Univ, | Sponsor: A. Weller |
| Brown, A. | Univ, Sheffield | Sponsor: J. Herbert |
| Brown, K. | Univ, Delaware | Sponsor: M. Stanton |
| Chadman, K. | Univ, Delaware | Sponsor: M. Stanton |
| Eseh, R. | Williams College | Sponsor: B. Zimmerberg |
| Gross, J. | Univ, Otago | Sponsor: H. Hayne |
| Jones, E. | Univ, Sheffield | Sponsor: J. Herbert |
| Kline, H. | Penn State Univ, | Sponsor: Kathryn Hood |
| Levine, A. | Bar-Ilan Univ, | Sponsor: Aron Weller |
| Morasch, K. | Virginia Tech | Sponsor: Martha Bell |

6:00- 8:00 Poster Session 2 (Cash Bar)

- #1 Consolidation of an Early Memory
B.Hars, N. Gruest, P. Richer
- #2 Maternal Separation Alters Odor Preferences and Place Preference Conditioning in Adolescent Mice
C.A. Cornwell, S.V. Onyper, K.N. Onyper
- #3 Physiological and Behavioral Consequences of Prenatal Glucocorticoid Treatment
E.P. Davis, E.L. Townsend, M.R. Gunnar, C.A. Sandman
- #4 Segregation and Heritability of Neophobic and Agoraphobic Behavioral Traits in the Mouse Strain 129x1/Svj
F. Magara, E. Senent, C. Polo, P.J. Magistretti

- #5 Beneficial Effects of Enriched Environment on Adolescent Rats from Stressed Pregnancies
G. Laviola, M. Rea, S. Morley-Fletcher, R. De Simone, M. Bertini, R. Pacifici
- #6 Dopamine 2 Receptor Mediation of Isolated Rat Pups' Vocal Response to Maternal Reunion and Re-isolation
J. Muller*, C. Bhairo, A. Jasper, M. Myers, H. Moore, H. Shair
***NIH Travel Awardee**
- #7 Gestational Stress Affects the Development of Dendritic Spines in the Rodent Anterior Cingulate Cortex
K. Braun, M. S. Murmu, M. Weinstock, S. Salomon, J. Bock
- #8 Frontal and Temporal EEG Differences and Novelty Preferences in 5-Month-Old Infants
K.C. Morasch*, M.A. Bell
***NIH Travel Awardee**
- #9 Impaired Reversal Learning in a Rodent Model of Autism.
K.K. Chadman*, M.E. Stanton
***NIH Travel Awardee**
- #10 Preference for Alcohol in the Infant Rat after Prenatal Alcohol Exposure, Measured By Intake and Taste Reactivity Tests
M. G. Chotro, C. Arias
- #11 EEG in 1-Week, 1-Month and 3-Month-Old Infants of Depressed and Non-Depressed Mothers
M. A. Diego*, N. A. Jones, T. Field
***NIH Travel Awardee**
- #12 The Brain Reward System in Genetic Animal Models of Childhood Depression
O. Malkesman*, A. Weller
***NIH Travel Awardee**
- #13 Longitudinal Study of Food Preference between the Ages of 2 and 22: the Case of Cheese
S. Nicklaus, B. Lawlor, D. Valentin, V. Boggio, S. Issanchou
- #14 Withdrawal-Based Emotion-Regulation Strategies in the Wistar-Kyoto (WKY) Rat Model of Depression
Y. Braw, A. Merlender, Y. Lavi-Avnon, O. Malkesman, A. Weller
***NIH Travel Awardee**

- #15 Visual Recognition Memory in 3-Month-Olds: the Changing Expression of Memory?
A. Brown*, O. Pascalis, J.S. Herbert
***NIH Travel Awardee**
- #16 Individual Differences in Response of Rat Pups to Maternal Potentiation of Ultrasonic Vocalization
Jasper*, C. Bhairo, H. Shair, S. Brunelli
***NIH Travel Awardee**
- #17 A Psychoneuroendocrinological Study of Antenatal Depression and Bonding
Levine*, R. Feldman, O. Zagoory, A. Weller
***NIH Travel Awardee**
- #18 Newborn Rabbit Attraction towards Maternal Faecal Pellets
A.S. Moncombe, B. Quenedey, G. Coureaud, D. Langlois, G. Perrier, B. Schaal,
- #19 Social Preferences of Rabbit Pups toward Lactating Individuals are Induced By Olfactory Learning
B. Patris, B. Schaal, G. Coureaud
- #20 The Salience of Olfaction in Children's Everyday Life: Development of a Questionnaire for Visually Impaired and Sighted Children.
C. Ferdenzi, G. Coureaud, B. Schaal
- #21 Lack of Paternal Care Interferes With Synaptic Composition in the Rodent Orbitofrontal Cortex
C. Helmeke, A. Schroeter, U. Malecki, K. Braun
- #22 Relation of Infant Hand-Use Preferences for Obtaining Objects to Hand Biases in Grip and Fingering Skills from 7 to 13 Months
C. K. Shafer*, A. N. Tyler, G. F. Michel
***NIH Travel Awardee**
- #23 The Response of Neonatal Rabbits to the Mammary Pheromone: Shift From Automatism to Prandial Control.
D. Montigny, G. Coureaud, B. Patris, B. Schaal
- #24 Infant Temperament and Breastfeeding in Preterm and Full Term Infants
D.A. Korsen*, E. P. Davis, F. Waffarn, C. Uy, L. M. Glynn
***NIH Travel Awardee**
- #25 Affiliation and Anxiety are Correlated With the First Response to Pups in Naive Juvenile and Adult Female Prairie Voles
D.E. Olazabal*, L.J. Young
***NIH Travel Awardee**
- #26 Behavioral Alterations in Mice With a Reduced Neuregulin-1 Ig Domain Isoform
S. Rao*, M. Zhou, R. Merker, M. Mann, G. Fischbach, J. Gingrich
***NIH Travel Awardee**
- #27 Ontogenetic Differences in the Serial Reversal of a Position Habit in Weanling Rats
D.J. Watson*, J.G. Frank, M.E. Stanton
***NIH Travel Awardee**
- #28 Does Maternal Relaxation Relax the Fetus?
J. A. DiPietro
- #29 Behavioral Effects of Serotonergic Agonists are Modulated By Spinal Transection in the Neonatal Rat.
M.R. Brumley*, S.R. Robinson
***NIH Travel Awardee**
- #30 Sensitivity to Contextual Change in 6- and 9-Month Old Human Infants
E.J.H Jones*, O. Pascalis, J.S. Herbert
***NIH Travel Awardee**
- #31 Testosterone and Estradiol in Sisters of Twin Brothers: No Evidence of Prenatal Androgenization
R. Rose, J. Kaprio, P. Eriksson
- #32 Developmental Perspective on Context-Specific Latent Inhibition
C. Yap*, R. Richardson
***NIH Travel Awardee**
- #33 Effects of Gestational and Lactational Iron Deficiency on the Development of Anxiety Behavior
R. Eseh* & B. Zimmerberg
***NIH Travel Awardee**
- #34 Acute perinatal asphyxia has long-term effects on maternal behavior in the rat.
L.T. Bonsignore, A. Venerosi, A. Valanzano, F. Chiarotti, E. Alleva, F. Cirulli.

MONDAY JUNE 28TH

COMMON DAY WITH BEHAVIOR GENETICS ASSOCIATION

8:00-8:45 Continental Breakfast and Coffee

8:45-9:00 Opening Ceremony with Officers from the Country and University de Provence

9:00-10:00 ISDP AND JOHN WILEY INVITED ADDRESS

Benoist. Schaal, Centre des Sciences du Goût, CNRS-UB-Inra, Dijon

Introduced By R. Lickliter, President of the ISDP

ENTERING THE MILKY WAY OF LIFE: THE ROLE OF REDUNDANT ODOR MESSAGES IN THE SURVIVAL OF INFANT MAMMALS

10:00-11:00 BGA INVITED ADDRESS

Jaakko Kaprio, Department of Public Health, University of Helsinki

Introduced By M. Carlier, President Elect of the BGA

THE DEVELOPMENT OF HEALTH-RELATED BEHAVIORS FROM ADOLESCENCE TO YOUNG ADULTHOOD - A LONGITUDINAL TWIN STUDY.

11:00-11:15 Break

11:15-12:45 JOINT SYMPOSIUM: DOWN SYNDROME: COGNITIVE AND MOLECULAR ASPECTS

Organizer and Chair: Pierre Roubertoux

DOWN SYNDROME: A TRIBUTE TO JÉRÔME LEJEUNE

Bernard Kerdeluhé, Fondation Jérôme Lejeune, and CNRS, Paris

COGNITIVE PROFILES IN CHILDREN WITH DOWN SYNDROME

S. Vicari, IRCCS, Ospedale Pediatrico Bambino Gesù

BRAIN SIZE AND CIRCUIT COMPLEXITY: A STUDY OF THE CEREBRAL CORTEX IN Dyrk1a MOUSE

M. Dierssen, R. Benavides-Piccione, I. Ballesteros-Yáñez, M. Martínez De Lagrán, M.L. Arbonés, V. Fotaki, X. Estivill, J. Defelipe, G. N. Elston. Genes and Disease Program, Genomic Regulation Center

12:45-2:30: JOINT ISDP/BGA POSTER SESSION

Light lunch is provided with cash bar

BGA

#1. Alison Pike and Thalia C. Eley. Relations among Parenting and Extra-familial Relationships: Nature or Nurture?

- #2. Andrey P. Anokhin, Andrew C. Heath, and Erin Myers. Genetic influences on neurocognitive mechanisms of inhibitory control: a twin study of event-related brain potentials (ERPs) in a Go/No-Go task.
- #3. Andrey P. Anokhin, Andrew C. Heath, and Erin Myers. Heritability of Behavioral Approach and Inhibition Systems (BIS/BAS) scales in twins.
- #4. Ariel Knafo, Alessandra C. Iervolino and Robert Plomin. Masculine Girls and Feminine Boys: Genetic and Environmental Contributions to Atypical Gender Development in Early Childhood.
- #5. Aude Gérard, Michèle Carlier, Nicole Philip, Laurent Villard, and Brigitte Chabrol. Do patients bearing oligophrenin 1 gene mutations present relative strength in visuo-spatial cognition? Preliminary results.
- #6. C.E.M. van Beijsterveldt and D.I. Boomsma. Prevalence, stability, and concordance rates of gender identification symptoms: A longitudinal study in Dutch twins.
- #7. Carol A Manning, Lillian J Currie, Madeline Harrison, G. Frederick Wooten, and Eric N. Turkheimer. Intellectual Impairment Differences in Parkinson's Patients With And Without Affected Mothers.
- #8. Catherine Tuvblad, Martin Grann, Paul Lichtenstein. Low heritability for antisocial behavior among adolescents residing in low socioeconomic environments.
- #9. Chizuru Shikishima and Juko Ando. Genetic and environmental influences on social attitudes: Evidence for increased shared environmental effects in families with high cohesion.
- #10. Christie Hartman, Erik Willcutt, and Bruce Pennington. The relation between ADHD and sluggish cognitive tempo: genetic and environmental contributions.
- #11. Cindy M. de Frias, Kristina Annerbrink, Lars Westberg, Elias Eriksson, Rolf Adolfsson, and Lars-Göran Nilsson. COMT gene polymorphism is associated with cognitive functioning in adulthood and old age.
- #12. David A. Blizard, David J. Vandenberg, Arimantas Lionikas, Glenn S. Gerhard, James W. Griffith, Laura C. Klein, Joseph T. Stout, Holly A. Mack, Joan M. Lakoski, Lars Larsson, Jeanne M. Spicer, George P. Vogler and Gerald E. McClearn. QTL influencing standard deviation of heart rate and blood pressure in the mouse.
- #13. Detre A. Godinez, Michael C. Stallings, Jeff Lessem, John K. Hewitt. Investigating Age at Onset Twin Analyses with Simulated Data.
- #14. Faïza Ben Mabrouk, Edouard Pearlstein, Jean-François Pflieger and Laurent Vinay. Serotonergic shaping of the locomotor pattern in the *in vitro* neonatal rat spinal cord.

- #15. Frances Rice and Anita Thapar. The effect of birth weight with genetic susceptibility in predicting childhood and adolescent depression.
- #16. Henrik Larsson, Jan-Olov Larsson, and Paul Lichtenstein. Differences in DSM-IV subtypes of ADHD: Genetic and Environmental Influences.
- #17. Hiroko Maekawa, Juko Ando, and Yutaka Ono. The structure of eating behavior and attitudes among Japanese adolescent women.
- #18. J. Drew Prosser and Y.-K. Kim. Kin recognition in *Drosophila paulistorum*: relatedness vs familiarity.
- #19. James C. Romeis, Hong Xian, Andrew C. Heath and Nancy Pedersen. Genetic influences on the relationship between alcohol dependence, self-reported health and health services use.
- #20. Juko Ando, Juko Ando, Ryoko Nakajima, Yutaka Ono, Kimio Yoshimura, Nobuhiko Kijima⁴, Kato Rumi Price⁵. Genetic influences on smoking and drinking behaviors in Japanese adolescence and young adulthood: A twin study.
- #21. Julien Amendola, Pierre L. Roubertoux, Bernard Verrier and Jacques Durand. Altered sensorimotor development in SOD1G85R transgenic mice, a model of amyotrophic lateral sclerosis
- #22. Kate J Lifford, K. Langley, D. Turic, M. B. Van den Bree, J. Williams, M. J. Owen & M. C. O'Donovan A. Thapar. Assessing the influence of GRIN2A on reading ability in attention-deficit/hyperactivity disorder.
- #23. Maarten W. Peeters, Martine A. Thomis, Hermine H.M. Maes, Ruth J.F. Loos, Albrecht L. Claessens, Robert Vlietinck, Gaston P. Beunen. Causes of stability in explosive strength during adolescence.
- #24. Maria Napolitano, Thalia C. Eley. Parental disciplinary styles and associations with anxiety in adolescent and young adults.
- #25. Mary Waldron, Andrew C. Heath, Eric Turkheimer, Robert E. Emery & Nicholas G. Martin. Age at first sexual intercourse and teenage pregnancy.
- #26. Michael F. Pogue-Geile, Raquel E. Gur, Ruben C. Gur, Laura Almasy, Joel Wood, Judy Thompson, Sarah Tarbox, and Vishwajit Nimgaonkar. Executive functioning and genetic liability to schizophrenia: Preliminary results from a large-pedigree, multiplex study.
- #27. Motoko Matsuura, Masumi Sugawara, Atsushi Sakai, Taketoshi Takuma, Sachiko Amou. Genetic and environmental influences on career attitudes and vocational preparation in Japanese junior high school and high school students.
- #28. Qiang Fu, Andrew C. Heath, Kathleen K. Bucholz, Michael J. Lyons, Ming T. Tsuang, William R. True, Seth A. Eisen. A twin study of posttraumatic stress disorder in Vietnam era veterans.
- #29. R. P. Corley, M. C. Stallings, J. K. Hewitt, S. E. Young, and J. Zeiger. Robustness of Genome Scan Results on Adolescent Dependence Vulnerability from the Colorado CADD.
- #30. Ragnhild B. Nes, E. Røysamb, K. Tambs & J. R. Harris. Sleep problems and well-being: Genetic and environmental contributions.
- #31. Robin P. Goin and Judy L. Silberg. Genetic influences and developmental trends in comorbid asthma, anxiety, and depression.
- #32. S. Ooki. Genetic and environmental influences on some habitual behaviors in childhood.
- #33. Sandra Wilkniess, Eric Turkheimer, Carol Manning, Irving Gottesman, Lora Baum, Susan Jones, Susan Miesfeldt. Communicating Cancer Risk Information in Genetic Counseling: Does Format of Presentation Affect Understanding?
- #34. Sergei B. Malykh, Elena D. Gindina, Viktoria V. Nadyseva. The developmental changes in sources of individual differences in adolescent temperament.
- #35. Shinji Yamagata, Atsunobu Suzuki, Kimio Yoshimura, Nobuhiko Kijima, Yutaka Ono, Juko Ando. The genetic and environmental structure of the NEO-PI-R: Facet-level analysis.
- #36. Sukumar T. Rao, Ming-Ming Zhou, Robert J. Merker, Mary A. Mann, Gerald D. Fischbach, Jay A. Gingrich. Behavioral alterations in mice with a reduced Neregulin-1 Ig domain isoform.
- #37. Susanne Henningsson, Anna Håkansson, Lars Westberg, Michael Landén, Fariba Baghaei, Roland Rosmond, Göran Holm, Elias Eriksson. Association between interleukin-6 gene polymorphism and personality traits in women.
- #38. Toni N. Smolen, Andrew Smolen and Erik Willcutt. Catechol-O-methyltransferase polymorphism in ADHD.
- #39. TS Kubarych, MC Neale. Item analysis of structured clinical interview data.
- #40. Victoria E. Cosgrove, Blake Buhlig, Soo Hyun Rhee, Susan E. Young, Andrew Smolen, Robin P. Corley, John K. Hewitt. Sibling-based association analyses of the serotonin transporter polymorphism and Generalized Anxiety Disorder in adolescents.
- #41. Xiangning Chen, Jaqueline M. Vink, Michael C. Neal, Kenneth S. Kendler and Dorret I. Boomsma. A candidate study of the EPAC gene for nicotine dependence using a Dutch twin sample

ISDP

- #1. Serial Reversal Learning Deficits in a Rodent Model of Autism.
J.G. Frank, D.J. Watson, M.E. Stanton
- #2. Do Dams from Selectively Bred Lines Show Differential Maternal Aggression, Maternal Behavior, and Anxiety-Like Behaviors?
H. L. Kline, K. E. Hood
- #3. Selective Breeding for High or Low Aggressive Behavior in Mice: Effects of Relaxing Selection after 30 generations..
K. E. Hood, J.-L. Gariépy, D. L. Nehrenberg, H. L. Kline.
- #4. Early Emotional Experiences Influence the Development of Distinct Interneuron Subpopulations in the Rodent Hippocampus
K. Becker, C. Helmeke, K. Braun
- #5. Growing Up Without Basal Forebrain Cholinergic Neurons: Effects On Rat Neonatal Behaviour
L. Ricceri, M.L. Scattoni, G. Calamandrei
- #6. Early-Life Intracerebroventricular Application of Saline But Not Metabotropic Glutamate Receptor Agonist Induces Long-term Behavioral Alteration
M. Alaverdashvili, J. Kaminskij, J. Folbergrova, R. Haugvicova, H. Kubova, P. Mares,
- #7. Early Sensorimotor Integration in the Rat Whisking System
M.S. Landers, H.P. Zeigler
- #8. Amount of Prenatal Visual Experience Affects Neural Plasticity and Postnatal Visual Responsivity in Bobwhite Quail Chicks
R. Lickliter, R. Carlsen, R. Markham
- #9. Testosterone and Estradiol in Sisters of Twin Brothers: No Evidence of Prenatal Androgenization
R. Rose, J. Kaprio, P. Eriksson
- #10. Spinal Transection Reduces But Does Not Eliminate Alternated Hindlimb Activity During Interlimb Yoke Training in the Neonatal Rat
S. A. Woller, G. A. Kleven, S. R. Robinson
- #11. Relationship Between Maternal Areolar Glands and Neonatal Growth in Humans: a Replication.
S. Doucet, R. Soussignan, B. Schaal
- #12. Fetal Alcohol Alters Cerebellar Neurochemistry: High-Resolution Magic Angle Spinning 1h Magnetic Resonance Spectroscopy (Hr-Mas 1h Mrs) At 11.7t
S. O. Leary-Moore, T.R. Mitchell, A. McMechan, S. Mathison, G.J. Moore, M.P. Galloway, J.H. Hannigan,
- #13. Yoke Training of a Forelimb-Hindlimb Pair Reveals Interlimb Dynamics As Well As Motor Learning in the Rat Fetus
S. R. Robinson, S. M. Hynes, M. R. Brumley
- #14. Behavioral Alterations in Mice With a Reduced Neuregulin-1 Ig Domain Isoform
S. Rao, M. Zhou, R. Merker, M. Mann, G. Fischbach, J. Gingrich,
- #15. Stress-Induced Hyperactivity in Trumpet-Tailed Rats (Octodon Degus): Effects of Methylphenidate Treatment On Behavior and Brain Activity
S. Zehle, J. Bock, G. Jezierski, K. Braun
- #16. Behavioral and Neurochemical Vulnerability During Adolescence in Mice: Studies With Nicotine
W. Adriani, O Granstrem, S Macri, G Izykenova, S Dambinova, G Laviola
- #17. Infant Distress Vocalizations and Parental Reactions Observed Among 3-Month-Olds From the US, Canada, Germany, Latin America, and Central Africa
Schoelmerich
- #18. Chronic Methylphenidate during Postnatal Development Produces D2 Receptor Alterations
S.L. Andersen, A.P. Thompson, E. Krenzel, M.H. Teicher
- #19. Physiological and Behavioral Consequences of Prenatal Glucocorticoid Treatment
E.P. Davis, E.L. Townsend, M.R. Gunnar, C.A. Sandman
- #20. Segregation and Heritability of Neophobic and Agoraphobic Behavioral Traits in the Mouse Strain 129x1/Svj
F. Magara, E. Senent, C. Polo, P.J. Magistretti
- #21. Dopamine 2 Receptor Mediation of Isolated Rat Pups' Vocal Response to Maternal Reunion and Re-isolation
J. Muller, C. Bhairo, A. Jasper, M. Myers, H. Moore, H. Shair
- #22. Gestational Stress Affects the Development of Dendritic Spines in the Rodent Anterior Cingulate Cortex
K. Braun, M. S. Murmu, M. Weinstock, S. Salomon, J. Bock

- #23. Frontal and Temporal EEG Differences and Novelty Preferences in 5-Month-Old Infants
K.C. Morasch, M.A. Bell
- #24. Impaired Reversal Learning in a Rodent Model of Autism.
K.K. Chadman, M.E. Stanton
- #25. Preference for Alcohol in the Infant Rat after Prenatal Alcohol Exposure, Measured By Intake and Taste Reactivity Tests
M. G. Chotro, C. Arias
- #26. The Brain Reward System in Genetic Animal Models of Childhood Depression
O. Malkesman, A. Weller
- #27. Withdrawal-Based Emotion-Regulation Strategies in the Wistar-Kyoto (WKY) Rat Model of Depression
Y. Braw, A. Merlender, Y. Lavi-Avnon, O. Malkesman, A. Weller
- #28. Lack of Paternal Care Interferes With Synaptic Composition in the Rodent Orbitofrontal Cortex
C. Helmeke, A. Schroeter, U. Malecki, K. Braun
- #29. Behavioral Effects of Serotonergic Agonists are Modulated By Spinal Transection in the Neonatal Rat.
M.R. Brumley, S.R. Robinson
- #30 Pre-Weanling Sensorial and Motor Development in Mice Carrying HSA21 Fragments Covering the Down Syndrome Chromosomal Region (DCR-1)
P.L. Roubertoux, M. Jamon, Z. Bichler, D. Migliore-Samour

2:30-4:00 JOINT SYMPOSIUM 2: BIOLOGY AND AUTISM

Organizers: Sylvie Tordjman (France) Gene Fish (USA).

TOWARDS AN INTEGRATED CLINICO-BIOLOGICAL APPROACH TO AUTISM
S. Tordjman : CNRS Hôpital Pitié-Salpêtrière, Paris

TOWARDS IDENTIFICATION OF AUTISM SUSCEPTIBILITY VARIANTS IN THE IMGSAAC SAMPLE.

Janine A Lamb¹, Elena Bonora¹, Gaby Barnby¹, Nuala Sykes¹, Elena Maestrini², Francesca Blasi², Elena Bacchelli², Kim S Beyer³, Sabine M Klauk³, Annemarie Poustka³, Anthony J Bailey⁴, Anthony P Monaco¹, International Molecular Genetic Study of Autism Consortium (IMGSAAC)⁵.
¹Wellcome Trust Centre for Human Genetics, University of Oxford, Oxford, UK. ²University of Bologna, Department of Biology, Bologna, Italy. ³Department of Molecular Genome Analysis, Deutsches Krebsforschungszentrum, Heidelberg, Germany. ⁴Section of Child and Adolescent Psychiatry, Park Hospital for Children, Oxford, UK. ⁵

ASSESSMENT OF COGNITIVE-BEHAVIORAL FEATURES OF CHILDREN AND ADOLESCENTS WITH EITHER AUTISM OR THE FRAGILE X MUTATION

Gene S. Fisch¹, Richard J. Simensen², Roger J. Schroer²¹ Biostatistics Unit, North Shore/ LIJ Research Institute, Manhasset, NY; ² Greenwood Genetics Center, Greenwood, SC

4:00 – 4:30 Coffee break

Behavior Genetics Association Meeting Begins

ISDP Members should check the Behavior Genetics Association Web Site for Program Details

BGA Symposium: BEHAVIOR GENETICS OF SUBSTANCE USE IN THE NATIONAL LONGITUDINAL STUDY OF ADOLESCENT HEALTH

5:50-7:15 BEHAVIOR GENETICS ORAL SESSION 2

Five Papers to be Presented

7:30 RECEPTION

**Hosted by the Maire of Aix en Provence for ISDP and BGA
Pavillon Vendôme**

Bar (offered by the city) and Cocktail Dinatoire