

Alcoholism and Stress: A Framework for Future Treatment Strategies

Volterra, Italy
May 3-6, 2011



Conference Organizers

Marisa Roberto
George Koob

<http://volterraconference.com/home.html>

MEETING SCHEDULE

Tuesday, May 3, 2011

8:15am – 8:30am	Introduction
8:30am – 9:00am	Opening Remarks
9:00am – 10:30am	Symposium I
10:30am – 11:00am	Coffee Break
11:00am – 12:30pm	Symposium II
12:30pm – 1:30pm	Lunch
1:30pm – 3:00pm	Symposium III
3:00pm – 4:00pm	Poster Session
4:00pm – 5:30pm	Symposium IV

Wednesday, May 4, 2011

8:30am – 9:30am	Plenary Lecture
9:30am – 11:00am	Symposium V
11:00am – 11:30am	Coffee Break
11:30am – 1:00pm	Symposium VI
1:00pm – 2:00pm	Lunch
2:00pm – 3:30pm	Symposium VII
2:00pm – 3:30pm	Symposium VIII
3:30pm – 4:30pm	Poster Session
4:30pm – 6:00pm	Symposium IX
4:30pm – 6:00pm	Symposium X

Thursday, May 5, 2011

8:30am – 9:30am	Plenary Lecture
9:30am – 11:00am	Symposium XI
11:00am – 11:30am	Coffee Break
11:30am – 1:00pm	Symposium XII
1:00pm – 2:00pm	Lunch
2:00pm – 3:30pm	Symposium XIII
2:00pm – 3:30pm	Symposium XIV
3:30pm – 4:30pm	Poster Session
4:30pm – 6:00pm	Symposium XV
4:30pm – 6:00pm	Symposium XVI

Friday, May 6, 2011

8:30am – 10:00am	Symposium XVII
10:00am – 10:30am	Coffee Break
10:30am – 12:00pm	Symposium XVIII
12:00pm – 1:00pm	Lunch
1:00pm – 2:30pm	Symposium XIX
2:30pm – 3:30pm	Poster Session
3:30pm – 5:30pm	Symposium XX

DOMAIN DISCUSANTS

This conference encompasses a broad range of research topics within the fields of alcohol and stress research. Each research area has been assigned a Domain Discussant, an expert within the field who will focus on all the meeting presentations within his respective domain. These Discussants will have an integral role in moderating the scientific discussions and promoting their relevance to current treatment strategies. Each Domain Discussant will provide a summary covering all relevant presentations in the conference proceedings to be published in a special issue of *Alcohol*.

Sam Zakhari, *NIAAA/NIH, Bethesda, MD*

Neil Harrison, *Columbia University, New York, NY*

George Koob, *The Scripps Research Institute, La Jolla, CA*

Bob Huebner, *NIAAA/NIH, Bethesda, MD*

Neuroimmunology

Physiology/Cellular Neurobiology

Behavioral/Translational Studies

Clinical Treatments

PROGRAM

Tuesday, May 3, 2011

7:00am – 8:15am	Registration	<i>Entrance Hall</i>
8:15am – 8:30am	Introduction Marisa Roberto, <i>The Scripps Research Institute, La Jolla, CA, USA</i> George F. Koob, <i>The Scripps Research Institute, La Jolla, CA, USA</i> Giovanni Manghetti, <i>President, Cassa Di Risparmio di Volterra</i> Edoardo Mangano, <i>President, Fondazione Cassa Di Risparmio di Volterra</i> Marco Buselli, <i>Mayor of Volterra</i>	<i>Salone Volterra</i>
8:30am – 9:00am	Opening Remarks Kenneth R. Warren, <i>Acting Director, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Bethesda, MD, USA</i>	
9:00am – 10:30am	Symposium I MODELS OF EXCESSIVE DRINKING AND RELATION TO STRESS Chairs: Howard Becker, <i>Medical University of South Carolina, Charleston, SC, USA</i> Kathleen A. Grant, <i>Oregon Health & Science University, Portland, OR, USA</i> Discussant: Klaus Miczek, <i>Tufts University, Meford, MA, USA</i> S3 Escalation of alcohol drinking in Sardinian alcohol-preferring rats exposed to intermittent or unpredictable access to alcohol Giancarlo Colombo, <i>University of Cagliari, Cagliari, Italy</i> S4 Stress Associated with Escalation of Drinking in Ethanol Dependent Mice: Role of CRF Systems Howard C. Becker, <i>Medical University of South Carolina, Charleston, SC, USA</i> S5 Chronic Ethanol Self-Administration in Monkeys and a Systems Biology Approach to Defining Ethanol Allostasis in the Primate Kathleen A. Grant, <i>Oregon Health & Science University, Portland, OR, USA</i> S6 Alcohol and stress: What the HPA axis is telling us about alcohol dependence Gary Wand, <i>Johns Hopkins University School of Medicine, Baltimore, MD, USA</i>	<i>Salone Volterra</i>
10:30am – 11:00am	Coffee Break	<i>Foyer</i>

- 11:00am – 12:30pm **Symposium II** **Salone Volterra**
 NEUROIMMUNE SIGNALING, ALCOHOL AND STRESS: THERAPEUTIC OPPORTUNITIES
 Chair: R. Adron Harris, *University of Texas at Austin, Austin, TX, USA*
 Discussant: George R. Siggins, *The Scripps Research Institute, La Jolla, CA, USA*
- S7 Neuroimmune Signaling, Alcohol and Stress: Therapeutic Opportunities
 R. Adron Harris, *University of Texas at Austin, Austin, TX, USA*
- S8 Regulation of signaling pathways in inflammation by alcohol
 Gyongyi Szabo, *Univ of Massachusetts Medical Center, Worcester, MA, USA*
- S9 Ethanol Induction of Innate Immune Genes creates the Neurobiology of Addiction
 Fulton T. Crews, *UNC School of Medicine, Chapel Hill, NC, USA*
- S10 Neuroimmune regulation of alcohol consumption and potential therapeutic targets
 Yuri A. Blednov, *University of Texas at Austin, Austin, TX, USA*
- S11 Neuroimmune targets of alcohol across the lifespan: the role of microglia
 Cynthia J.M. Kane, *Univ of Arkansas for Medical Sciences, Little Rock, AR, USA*
- 12:30pm – 1:30pm Lunch **Foyer**
- 1:30pm – 3:00pm **Symposium III** **Salone Volterra**
 STRESS AND ALCOHOL REGULATION OF SYNAPTIC TRANSMISSION AND MODULATION IN
 EMOTIONAL NEURAL CIRCUITRY
 Chairs: Thomas Kash, *UNC School of Medicine, Chapel Hill, NC, USA*
 A. Leslie Morrow, *UNC School of Medicine, Chapel Hill, NC, USA*
 Discussant: Mark Brodie, *University of Illinois at Chicago, Chicago, IL, USA*
- S12 Identification of a novel GABAergic circuit in the basolateral amygdala that may contribute to
 alcohol's anxiolytic effects
 Jeff Weiner, *Wake Forest University School of Medicine, Winston Salem, NC, USA*
- S13 Upregulation of extra-hypothalamic corticotropin releasing hormone (CRH) system: a
 hallmark of increased drinking, relapse vulnerability and anxiety-like behaviors
 Andrea Cippitelli, *Univ of Camerino, School of Pharmacy, Pharmacology Unit, Camerino, Italy*
- S14 Previous ethanol experience enhances synaptic plasticity of NMDA receptors in the ventral
 tegmental area: interaction with CRF
 Hitoshi Morikawa, *University of Texas at Austin, Austin, TX, USA*
- S15 Chronic ethanol exposure modulates α 1-adrenergic receptor induced synaptic plasticity in
 the extended amygdala
 Danny Winder, *Vanderbilt University, Nashville, TN, USA*
- 3:00pm – 4:00pm **POSTER SESSION** **Sala Dante**
- P86 Pioglitazone potentiates naltrexone-induced inhibition of alcohol drinking and relapse
 through activation of PPAR γ receptors
 Giordano de Guglielmo, *Univ of Camerino, School of Pharmacy, Camerino, Italy*
- P87 Behavioral and brain neurotrophin alterations in a FASD mouse model
 Marco Fiore, *Istituto di Neurobiologia e Medicina Molecolare, Roma, Italy*
- P88 Increased NGF and BDNF in the thyroid of aged male mice exposed in fetus and during
 lactation to ethanol
 Marco Fiore, *Istituto di Neurobiologia e Medicina Molecolare, Roma, Italy*
- P89 Acute ethanol potentiates tonic GABAA receptor signaling in the Central Amygdala
 Melissa A. Herman, *The Scripps Research Institute, La Jolla, CA, USA*
- P90 Intra central amygdala injection of nociceptin exerts a potent anxiolytic-like action in
 restraint-stressed rats via changes in GABAergic transmission
 Marsida Kallupi, *The Scripps Research Institute, La Jolla, CA, USA*

- P91 Neuropeptide S potentiates cues-induced relapse of alcohol seeking. An effect blocked by the Hypocretin-1/Orexin-A receptor antagonist SB334867
Massimo Ubaldi, *Univ of Camerino, School of Pharmacy, Pharmacology Unit, Camerino, Italy*
- P92 Effects of dizocilpine on nitric oxide synthase (nNOS) in mice following stress and ethanol exposure
Jaqueline B.S. Rocha, *Instituto de Ciências Biomédicas, Universidade de São Paulo, Brazil*
- P93 Effects of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) inhibition on anxiety-like behavior in mice
Antonia Serrano, *The Scripps Research Institute, La Jolla, CA, USA*
- P94 CRF-sensitivity of VTA Projecting Neurons in the BNST: Effects of Chronic Ethanol Exposure
Yuval Silberman, *Vanderbilt University, Nashville, TN, USA*
- P95 Rats with a history of stress show elevated relapse-like ethanol self-administration: relation to neuronal pentraxin expression in the medial amygdala
Marian L. Logrip, *The Scripps Research Institute, La Jolla, CA, USA*
- P96 Behavioral economic analysis of stress-elicited craving for alcohol
James MacKillop, *University of Georgia, Athens, GA, USA*
- P97 Effect of adenosine A2A receptor ligands on voluntary ethanol intake in msP rats
Maria Vittoria Micioni DB, *University of Camerino, School of Pharmacy, Camerino, Italy*
- P98 Yohimbine dose-dependently increases operant self-administration of ethanol in alcohol-preferring (P) rats
Megan L. Bertholomey, *Indiana University-Purdue University, Indianapolis, IN, USA*
- P99 Increasing or decreasing local allopregnanolone levels during the development of physical dependence alters ethanol withdrawal severity
Michelle A. Tanchuck, *OHSU and Portland Alcohol Research Center, Portland, OR, USA*

4:00pm – 5:30pm

Symposium IV

Salone Volterra

ENDOCANNABINOID INFLUENCE IN STRESS-RESPONSES AND AFFECTIVE CONTROL: DYSREGULATION IN ALCOHOL DEPENDENCE

Chairs: Loren H. Parsons, *The Scripps Research Institute, La Jolla, CA, USA*

John J. Woodward, *Medical University of South Carolina, Charleston, SC, USA*

Discussant: Maurizio Massi, *University of Camerino, Camerino, Italy*

- S16 Endocannabinoids: Effectors of glucocorticoid signaling in the brain
Cecilia J. Hillard, *Medical College of Wisconsin, Milwaukee, WI, USA*
- S17 Role of the cannabinoid receptor 1 (CB1) in fear adaptation
Carsten T. Wotjak, *Max Planck Institute of Psychiatry, Munich, Germany*
- S18 Endocannabinoid signaling in the prefrontal cortex of alcohol dependent mice
John J. Woodward, *Medical University of South Carolina, Charleston, SC, USA*
- S19 Dysregulated endocannabinoid function in the central amygdala and prefrontal cortex of alcohol-dependent rodents
Loren H. Parsons, *The Scripps Research Institute, La Jolla, CA, USA*

Wednesday, May 4, 2011

- 8:30am – 9:30am **Plenary Lecture** **Salone Volterra**
S1 NEW TREATMENT STRATEGIES FOR RELAPSE PREVENTION
Rainer Spanagel, *Central Institute of Mental Health, Mannheim, Germany*
- 9:30am – 11:00am **Symposium V** **Salone Volterra**
FROM MEMBRANE TO NUCLEAR RECEPTORS: NEW TARGETS FOR THE TREATMENT OF STRESS-INDUCED ALCOHOL ABUSE
Chair: Rémi Martin-Fardon, *The Scripps Research Institute, La Jolla, CA, USA*
S20 Group I and Group II Metabotropic Glutamate Receptors: Treatment Targets Potential for Alcohol Addiction
Friedbert Weiss, *The Scripps Research Institute, La Jolla, CA, USA*
S21 Preclinical validation of the neurokinin 1 receptor (NK1R) as a target for treatment of alcoholism
Markus Heilig, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA*
S22 A selective ALDH2 inhibitor with anxiolytic properties prevents heavy drinking and cue-induced reinstatement: the role of dopamine
Ivan Diamond, *Gilead Sciences, Palo Alto, CA, USA*
S23 Effects of Oeylethanolamide on alcohol self-administration and relapse: mediation by PPARalpha and VR1
Fernando Rodriguez de Fonseca, *Fundación IMABIS, Málaga, Spain*
S24 Activation of PPARgamma receptors as a treatment target for alcoholism. Focus on stress mechanisms
Roberto Ciccocioppo, *Univ of Camerino, School of Pharmacy, Pharmacology Unit, Camerino, Italy*
- 11:00am – 11:30am Coffee Break **Foyer**
- 11:30am – 1:00pm **Symposium VI** **Salone Volterra**
TARGETING DYNORPHIN/KAPPA-OPIOID RECEPTOR SYSTEMS TO TREAT ALCOHOL ABUSE AND DEPENDENCE
Chair: Brendan Walker, *Washington State University, Pullman, WA, USA*
Discussant: George F. Koob, *The Scripps Research Institute, La Jolla, CA, USA*
S25 Kappa-opioid receptors in the extended amygdala and excessive ethanol self-administration produced by ethanol dependence
Brendan M. Walker, *Washington State University, Pullman, WA, USA*
S26 Kappa-opioid regulation of stress-related reinstatement and the behavioral stress response during withdrawal
Glenn R. Valdez, *Grand Valley State University, Allendale, MI, USA*
S27 Endogenous kappa-opioid mediation of stress-induced reinstatement and potentiation of ethanol seeking behavior
Jay P. McLaughlin, *Torrey Pines Institute for Molecular Studies, Port St. Lucie, FL, USA*
S28 Molecular adaptations in the opioid systems in human alcoholics: relevance for cognitive impairment
Georgy Bakalkin, *Uppsala University, Uppsala, Sweden*
- 1:00pm – 2:00pm Lunch **Foyer**

2:00pm – 3:30pm

Symposium VII

Sala Leonardo

POST-TRAUMATIC STRESS DISORDER AND ALCOHOL DEPENDENCE

Chair: Nicholas W. Gilpin, *The Scripps Research Institute, La Jolla, CA, USA*

Discussant: Lindsey Grandison, *National Inst on Alcohol Abuse and Alcoholism, Bethesda, MD, USA*

- S29 Prazosin for Alcohol Dependence in Combat Trauma Posttraumatic Stress Disorder
Murray A. Raskind, *University of Washington, Seattle, WA, USA*
- S31 A New Animal Model of Post-Traumatic Stress Disorder & Alcohol-Related Behaviors
Nicholas W. Gilpin, *The Scripps Research Institute, La Jolla, CA, USA*
- S32 Stress-enhanced fear learning increases voluntary alcohol consumption and preference
Igor Spigelman, *UCLA, Los Angeles, CA, USA*
- S33 Bidirectional control of fear expression and extinction by prefrontal-amygdala circuits
Gregory J. Quirk, *University of Puerto Rico School of Medicine, San Juan, PR*

2:00pm – 3:30pm

Symposium VIII

Salone Volterra

BDNF IN STRESS AND ALCOHOL CONSUMPTION-RELATED DISORDERS

Chair: Dorit Ron, *The Gallo Research Center, UCSF, San Francisco, CA, USA*

- S34 Differential Role of BDNF in Moderate and Excessive Consumption of Ethanol
Dorit Ron, *The Gallo Research Center, UCSF, San Francisco, CA, USA*
- S35 Role of BDNF in Prefrontal Cortex in Ethanol Dependence and Relapse Drinking
William C. Griffin, *Medical University of South Carolina, Charleston, SC, USA*
- S36 Ethanol-induced growth factor dysfunctions in neural stem cells: Implications to Stress
Wataru Ukai, *Sapporo Medical University, Sapporo, Japan*
- S37 Anxiety and Alcoholism: A Role of amygdaloid BDNF-Erk Signaling
Subhash C. Pandey, *University of Illinois at Chicago, Chicago, IL, USA*

3:30pm – 4:30pm

POSTER SESSION

Sala Dante

- P100 Cross-sensitization between stress and ethanol in adolescent and adult mice: role of nNOS
Rosana Camarini, *Instituto de Ciências Biomédicas, Universidade de São Paulo, Brazil*
- P101 Chronic intermittent ethanol vapor exposure as a tool for modeling major diagnostic criteria for alcohol dependence in mice
Marguerite C. Camp, *Laboratory for Integrative Neuroscience, NIAAA/NIH, Rockville, MD, USA*
- P102 A new animal model of PTSD and alcohol drinking: Effects of predator stress and conditioned stimuli on operant alcohol self-administration
Casey Y. Carmichael, *The Scripps Research Institute, La Jolla, CA, USA*
- P103 Prenatal ethanol exposure causes dynamic changes in the synaptic transmission in the dorsal striatum and disrupts subsequent habit formation in the adult mouse
Verginia C. Cuzon Carlson, *NIAAA/NIH, Rockville, MD, USA*
- P104 Binge drinking during early adolescence reduces sex and age differences in anxiety-like behavior in male and female rats
Heather N. Richardson, *University of Massachusetts Amherst, Amherst, MA, USA*
- P105 Stress-mediated Plasticity of Neuropeptide Y Signaling in the Extended Amygdala
Kristen E. Pleil, *University of North Carolina at Chapel Hill, Chapel Hill, NC, USA*
- P106 EtOH cues conditioned to negative reinforcement by EtOH during withdrawal induce reinstatement, override the effects of cues conditioned to the positive reinforcing effects of EtOH and show reduced sensitivity to the "anti-reinstatement" effects of MTEP
Peter R. Kufahl, *The Scripps Research Institute, La Jolla, CA, USA*
- P107 Analysis of norepinephrine release dynamics within the bed nucleus of the stria terminalis
Zoé A. McElligott, *Bowles Center for Alcohol Studies, Univ of North Carolina, Chapel Hill, NC, USA*

- P108 Increases in voluntary alcohol consumption and preference in a rat model of post-traumatic stress disorder
Edward M. Meyer, *Div Oral Biology & Medicine, UCLA School of Dentistry, Los Angeles, CA, USA*
- P109 Enhancing performance through increasing stress: Could nicotine help?
Robert Prather, *University of Florida, Department of Psychiatry, Gainesville, FL, USA*
- P110 The Influence of Trauma Stress Cues and Posttraumatic Stress Symptoms on Alcohol Information Processing
Jennifer P. Read, *Dept. of Psychology, State University of New York at Buffalo, Buffalo, NY, USA*
- P111 Stressful life events and alcohol use among adults: the role of mood-related drinking motives
Kelly C. Young-Wolff, *University of Southern California, Los Angeles, CA, USA*
- P112 Differences between stress and environmental enrichment in ethanol withdrawal in Wistar rats
Jaqueline B.S. Rocha, *Health Sciences Direction, Universidade Nove de Julho, São Paulo, Brazil*
- P113 Behavioural changes produced by stress on abstinence in rats pretreated with ethanol
Jaqueline B.S. Rocha, *Health Sciences Direction, Universidade Nove de Julho, São Paulo, Brazil*

4:30pm – 6:00pm

Symposium IX

Sala Leonardo

NEGATIVE MOOD AND ALCOHOL: THE ROLE OF AUTOMATIC PROCESSES

Chair: Elske Salemink, *University of Amsterdam, Amsterdam, The Netherlands*

- S38 Negative emotional primes and attentional bias towards alcohol in high anxious individuals
Elske Salemink, *University of Amsterdam, Amsterdam, The Netherlands*
- S39 Interpretive biases and their relation to alcohol-related problems and drinking motives in heavy and light drinking students
Marcella L. Woud, *Radboud Universiteit, Nijmegen, The Netherlands*
- S40 Clarifying behavioural inhibition risk for negative reinforcement drinking
Roisin M. O'Connor, *Concordia University, Montreal, Canada*
- S41 Experimental and cross-sectional examinations of the relations among implicit alcohol cognitions, stress, and drinking
Kristen P. Lindgren, *University of Washington, Seattle, WA, USA*

4:30pm – 6:00pm

Symposium X

Salone Volterra

ROLE OF STRESS IN THE PATHOPHYSIOLOGY OF FETAL ALCOHOL SPECTRUM DISORDERS

Chairs: C. Fernando Valenzuela, *Univ of New Mexico School of Medicine, Albuquerque, NM, USA*

Edward P. Riley, *San Diego State University, San Diego, CA, USA*

Discussant: Edward P. Riley, *San Diego State University, San Diego, CA, USA*

- S42 Prenatal alcohol exposure: fetal programming, stress and vulnerability in later life
Joanne Weinberg, *University of British Columbia, Vancouver, BC, Canada*
- S43 The role of prenatal stress and/or alcohol exposure on neurobehavior, stress reactivity, and brain function in a primate model
Mary L. Schneider, *University of Wisconsin-Madison, Madison, WI, USA*
- S44 Impact of maternal drinking and stress during pregnancy on placental and fetal cortical gene expression
Daniel D. Savage II, *Univ of New Mexico School of Medicine, Albuquerque, NM, USA*
- S45 Effect of prenatal ethanol exposure and maternal stress on neurovascular development in cerebral cortex
Bruno Gonzalez, *European Inst for Peptide Research, Univ of Rouen, Mont-St-Aignan, France*

Thursday, May 5, 2011

- 8:30am – 9:30am **Plenary Lecture** **Salone Volterra**
S2 LINKS BETWEEN STRESS SENSITIVITY AND RESPONSIVENESS TO ALCOHOL: LESSONS FROM A NONHUMAN PRIMATE GENETIC STUDY
Judy L. Cameron, *University of Pittsburgh, Pittsburgh, PA, USA*
- 9:30am – 11:00am **Symposium XI** **Salone Volterra**
ALCOHOL EXPOSURE, IMPAIRED DECISION MAKING AND THE PREFRONTAL CORTEX
Chair: L. Judson Chandler, *Medical University of South Carolina, Charleston, SC, USA*
S46 Prenatal stress increases alcohol-seeking and alters glutamate signaling in the prefrontal cortex
Tod E. Kippin, *Univ of California Santa Barbara, Santa Barbara, CA, USA*
S47 Impaired working memory in rats following chronic alcohol exposure is associated a reduction in the organization of neural networks of the medial PFC
L. Judson Chandler, *Medical University of South Carolina, Charleston, SC, USA*
S48 Emotional and cognitive impairments associated with repeated detoxifications; brain mechanisms
Theodora Duka, *University of Sussex, Brighton, UK*
S49 Immediate Reward Bias: Fixed trait or Changeable State? A role for frontal dopamine
Charlotte A. Boettiger, *University of North Carolina, Chapel Hill, NC, USA*
- 11:00am – 11:30am Coffee Break **Foyer**
- 11:30am – 1:00pm **Symposium XII** **Salone Volterra**
YOUNG INVESTIGATOR AWARD
Chairs: Antonio Noronha, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA*
Fulton Crews, *University of North Carolina, Chapel Hill, NC, USA*
S50 Stress and Alcohol Modulation of Kappa Opioid Receptor Signaling in the Bed Nucleus of the Stria Terminalis
Thomas Louis Kash, *University of North Carolina, Chapel Hill, NC, USA*
S51 SK channels regulate ethanol-associated plasticity and influence voluntary ethanol consumption
Patrick Mulholland, *Medical University of South Carolina, Charleston, SC, USA*
S52 Long-lasting effects of alcohol on membrane properties and synaptic transmission in the nucleus accumbens
Vincent Marty, *UCLA, Los Angeles, CA, USA*
S53 Neuropeptide Y: The Light Side of the Dark Side of Alcoholism
Nicholas W. Gilpin, *The Scripps Research Institute, La Jolla, CA, USA*
S54 Behavioral neurobiology of escalated alcohol self-administration and negative affect induced by dependence
Brendan M. Walker, *Washington State University, Pullman, WA, USA*
- 1:00pm – 2:00pm Lunch **Foyer**
- 2:00pm – 3:30pm **Symposium XIII** **Sala Leonardo**
STRESS AROUSAL AND ALCOHOL INTERACTIONS: CLINICAL STUDIES IN HIGH-RISK ADOLESCENTS, HEALTHY ADULTS AND ALCOHOL-DEPENDENT SUBJECTS
Chair: Bryon Adinoff, *UT Southwestern Med Ctr; VA North Texas Health Care System, Dallas, TX, USA*
S55 Moderation of Gene x Neuroimaging Associations of Reinforcement-related Behaviour by Stressful Life events in the IMAGEN Study (www.imagen-europe.com)
Gunter Schumann, *Institute of Psychiatry at King's College, London, UK*

- S56 Cortisol response to i.v. alcohol administration during sleep
Klaus Junghanns, *University of Luebeck, Luebeck, Germany*
- S57 Chronic alcohol and peripheral and neural changes in stress arousal: Effects on Relapse Susceptibility and Treatment Outcome
Rajita Sinha, *Yale University School of Medicine, New Haven, CT, USA*
- S58 Unraveling the Risks: Stress, Trauma and Alcohol Effects Upon Biologic Stress Response Systems and Prospective Relapse in Alcohol Dependent Subjects
Bryon Adinoff, *UT Southwestern Med Ctr; VA North Texas Health Care System, Dallas, TX, USA*

2:00pm – 3:30pm

Symposium XIV

Salone Volterra

DORSAL STRIATUM ROLES IN STRESS AND ALCOHOL ACTIONS THAT ALTER GOAL-DIRECTED AND HABITUAL BEHAVIOR

Chair: David Lovinger, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA*

- S59 Stressing out Decisions
Eduardo Dias-Ferreira, *Inst Gulbenkian de Ciência, Oeiras, Portugal*
- S60 Long-lasting activation of the NMDA receptors in the dorsomedial striatum in a rat model of excessive alcohol consumption - implications for alcohol abuse disorders
Sebastien Carnicella, *Gallo Research Center, Emeryville, CA, USA and Grenoble Institute of Neuroscience, Inserm U836 and Joseph Fourier University, La Tronche, France*
- S61 Binge drinking during adolescence induces a persistent increase in delta opioid receptor function in the dorsolateral striatum that contributes to ethanol consumption in adulthood
Selena E. Bartlett, *Ernest Gallo Clinic and Research Center, UCSF, Emeryville, CA, USA*
- S62 Synaptic morphological and functional changes in the striatum after prolonged ethanol self-administration in monkeys and rodents
Veronica A. Alvarez, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA*

3:30pm – 4:30pm

POSTER SESSION

Sala Dante

- P114 TLR4 and IL-1 receptor-dependent modulation of ethanol effects on GABAergic transmission in the mouse central amygdala
Michal Bajo, *The Scripps Research Institute, La Jolla, CA, USA*
- P115 Use of schedule-induced polydipsia to discern the relationship between excessive ethanol drinking and plasma corticosterone in mice across a bitonic function of fixed time intervals
Matthew M. Ford, *Oregon Health & Science University, Portland, OR, USA*
- P116 Recruitment of the Prefrontal Cortex during with-drawal is associated with working memory impairment and predicts escalation of alcohol intake
Olivier George, *The Scripps Research Institute, La Jolla, CA, USA*
- P117 Effects of ethanol on excitatory transmission in the dorsal-lateral bed nucleus of the stria terminalis in GluN2BKO Mice
Tiffany A. Wills, *Vanderbilt University, Nashville, TN, USA*
- P118 Stress-induced reinstatement of palatable food seeking: Role of dorsal medial prefrontal cortex dopamine D1-family receptors
Carlo Cifani, *Behavioral Neuroscience Branch NIDA/NIH, Baltimore, MD, USA*
- P119 Chronic Ethanol-induced D1R-mediated potentiation of local, but not LPC GABAergic transmission in the basolateral amygdala
Marvin R. Diaz, *Wake Forest University School of Medicine, Winston-Salem, NC, USA*
- P120 Antecedent anxiety predicts compulsive-like alcohol drinking in rats
Leandro F. Vendruscolo, *The Scripps Research Institute, La Jolla, CA, USA*
- P121 Binge drinking experience in adolescent mice shows increased adult alcohol intake: Alterations in glutamatergic transmission and interaction with stress
Deborah A. Finn, *VAMC Research; Dept Behavioral Neuroscience, OHSU, Portland, OR, USA*

- P122 Effects of ethanol on a novel population of dopamine neurons in the periaqueductal gray that innervate the extended amygdala
Chia Li, *University of North Carolina at Chapel Hill, Chapel Hill, NC USA*
- P123 Homer2 is necessary for the inhibitory effects of CeA blockade of mGluR5 and PKC epsilon upon binge alcohol drinking
Karen K. Szumlinski, *University of California at Santa Barbara, Santa Barbara, CA, USA*
- P124 Effects of chronic alcohol treatment and mifepristone on brain concentrations of corticosterone
Hilary J. Little, *Institute of Psychiatry, King's College, London, UK*
- P125 Dopamine inhibition reversal in the ventral tegmental area: Antagonism by ethanol or protein kinase C
Sudarat Nimitvilai, *Dept of Physiology and Biophysics, University of Illinois at Chicago, IL, USA*
- P126 Modulation of GABAergic transmission in rat cortical and hippocampal neurons by the anti-inflammatory cytokine IL-10
Asha Suryanarayanan, *Div Oral Biology & Medicine, UCLA Sch of Dentistry, Los Angeles, CA, USA*
- P127 Reduction of alcohol drinking and relapse following administration of the novel GABA analogue Pregabalin
Serena Stopponi, *Univ of Camerino, School of Pharmacy, Pharmacology Unit, Camerino, Italy*

4:30pm – 6:00pm

Symposium XV

Sala Leonardo

NEUROIMAGING OF ALCOHOLISM: FROM MOUSE TO RAT TO MONKEY TO MAN

Chairs: Edith Sullivan, *SRI International and Stanford Univ Sch of Medicine, Menlo Park, CA, USA*

Adolf Pfefferbaum, *SRI International and Stanford Univ Sch of Medicine, Menlo Park, CA, USA*

- S63 Magnetic resonance and diffusion tensor imaging of pre- and postnatal brains in a mouse Fetal Alcohol Spectrum Disorders model
Kathleen K. Sulik, *University of North Carolina, Chapel Hill, NC, USA*
- S64 Alcohol exposure and nutritional deficiency in rat models: translational neuroimaging studies
Adolf Pfefferbaum, *SRI International and Stanford Univ Sch of Medicine, Menlo Park, CA, USA*
- S65 Selective Increases in Brain Ethanol Methyl 1H T2 with Chronic Ethanol Self-Administration in Monkeys
Christopher D. Kroenke, *Oregon Health & Science University, Portland, OR, USA*
- S66 Glutamate levels in rat and human brains, a MR Spectroscopy study
Karl Mann, *CIMH Mannheim, University of Heidelberg, Germany*

4:30pm – 6:00pm

Symposium XVI

Salone Volterra

UROCORTINS - CRF'S SIBLINGS AND THEIR ROLE IN ANXIETY, DEPRESSION AND EXCESSIVE ALCOHOL USE

Chair: Andrey E. Ryabinin, *Oregon Health & Science University, Portland, OR, USA*

Discussant: Zachary Rodd, *Indiana University School of Medicine, Indianapolis, IN, USA*

- S67 Urocortin 1 and the moody brain
Tamás Kozicz, *Radboud University, Nijmegen, The Netherlands*
- S68 Dissecting the central stress response using site-specific genetic manipulation - focus on CRF/urocortin systems
Alon Chen, *Weizmann Institute of Science, Rehovot, Israel*
- S69 Differential roles of CRF and Urocortin 1 in regulation of alcohol intake
Andrey E. Ryabinin, *Oregon Health & Science University, Portland, OR, USA*
- S70 The role of corticotropin releasing factor (CRF)-1 and CRF-2 receptors in binge-like ethanol drinking
Todd E. Thiele, *University of North Carolina at Chapel Hill, Chapel Hill, NC, USA*

Friday, May 6, 2011

- 8:30am – 10:00am **Symposium XVII** *Salone Volterra*
ENDOGENOUS OPIOIDS MEDIATE THE RELATIONSHIP BETWEEN STRESS AND ALCOHOL
Chair: Judith Grisel, *Furman University, Greenville, SC, USA*
S71 Opioids, Mood and Craving
Gal Yadid, *Bar-Ilan University, Ramat-Gan, Israel*
S72 Endogenous opioid peptides as mediators of the early environmental influence on ethanol consumption
Ingrid Nylander, *Uppsala University, Uppsala, Sweden*
S73 b-Endorphin influences behavioral responses to EtOH in a sex dependent manner
Judith E. Grisel, *Furman University, Greenville, SC, USA*
S74 Stress reactivity of endogen opioid peptide knockout animals after chronic alcohol treatment
Ildikó Rácz, *Institute of Molecular Psychiatry, University of Bonn, Germany*
S75 Transcriptional regulation in the extended amygdala following exposure to alcohol
Brigitte Kieffer, *IGBMC, Dept Translational Medicine and Neurogenetics, Strasbourg, France*
- 10:00am – 10:30am Coffee Break *Foyer*
- 10:30am – 12:00pm **Symposium XVIII** *Salone Volterra*
CLINICAL TREATMENTS ROUNDTABLE
Chairs: Barbara Mason, *The Scripps Research Institute, La Jolla, CA, USA*
Markus Heilig, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD*
S76 Barbara Mason, *The Scripps Research Institute, La Jolla, CA, USA*
Markus Heilig, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD*
Emilio Merlo-Pich, *GlaxoSmithKline, Philadelphia, PA, USA*
Giovanni Addolorato, *University of Rome, Rome, Italy*
Joanne Fertig, *National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, USA*
- 12:00pm – 1:00pm Lunch *Foyer*
- 1:00pm – 2:30pm **Symposium XIX** *Salone Volterra*
ALCOHOL GETS ON MY NERVES
Chair: Robert O. Messing, *Gallo Clinic and Res Ctr, Dept of Neurology, UCSF, Emeryville, CA, USA*
Discussant: Emilio Merlo-Pich, *GlaxoSmithKline, Philadelphia, PA, USA*
S77 Development of Mechanical Allodynia During Ethanol Dependence in Rats and Mice
Scott Edwards, *The Scripps Research Institute, La Jolla, CA, USA*
S78 Alcoholic Polyneuropathy is Worsened by Binge Drinking and is PKC epsilon-Dependent
Robert O. Messing, *Gallo Clinic and Res Ctr, Dept of Neurology, UCSF, Emeryville, CA, USA*
S79 Alcohol-induced Stress in Painful Alcoholic Neuropathy
Jon D. Levine, *UCSF, San Francisco CA, USA*
S80 Emergence of Functional Spinal Delta Opioid Receptors after Chronic Ethanol Exposure
Richard M. van Rijn, *Gallo Clinic and Res Ctr, Dept of Neurology, UCSF, Emeryville, CA, USA*
- 2:30pm – 3:30pm **POSTER SESSION** *Sala Dante*
P128 Stress and Problem Drinking in the Workplace
Genevieve Ames, *UC Berkeley, Pacific Institute for Research & Evaluation, Berkeley, CA, USA*

- P129 Cue-induced brain activation mediates subsequent relapse in abstinent alcohol-dependent patients
Anne Beck, *Dept of Psychiatry, Charité-Universitätsmedizin Berlin, Germany*
- P130 Sex differences in the relationship between cortisol and attentional performance in alcoholics
Jeff Boissoneault, *Department of Psychiatry, University of Florida, Gainesville, FL, USA*
- P131 Neuronal patterns of implicit emotion processing of affective facial expressions (fMRI) in alcohol-dependent patients vs healthy controls
Katrin Charlet, *Dept of Psychiatry & Psychotherapy, Charité Universitätsmedizin Berlin, Germany*
- P132 Metabolic changes due to detoxification in alcohol-dependent patients' brains - a magnetic resonance spectroscopy study
Katrin Charlet, *Dept of Psychiatry & Psychotherapy, Charité Universitätsmedizin Berlin, Germany*
- P133 The Role of Motivation for reward, Inhibition of Behavior, and Negative Life Events on Adolescent Alcohol use
Craig R. Colder, *Department of Psychology, University at Buffalo, SUNY, Buffalo, NY, USA*
- P134 Changes in stress and drinking following MBSR training in alcoholism treatment
Gerard J. Connors, *Research Inst on Addictions & Sch of Social Work, Univ at Buffalo, NY, USA*
- P135 Relationship between adverse childhood experiences and alcohol-related outcomes in recently detoxified alcoholics
Melanie L. Schwandt, *Laboratory of Clinical and Translational Studies, NIAAA, Bethesda, MD, USA*
- P136 Does reducing addiction severity through outpatient treatment improve quality of life?
Guo Song, *National Addictions Management Service, Institute of Mental Health, Singapore*
- P137 Individual differences in incentive motivation predict alcoholism-related behaviors
Jacqueline M. Barker, *Department of Psychiatry, Yale University, New Haven, CT, USA*
- P138 Associations of NPY polymorphisms with plasma NPY response to an acute yohimbine challenge: a dose response study
John McGeary, *VA/Brown University, Providence, RI, USA*
- P139 Relationship between stress-related hormones, alcohol craving and drinking in a human laboratory paradigm: a pilot study
George A. Kenna, *Ctr for Alcohol and Addiction Studies, Brown University, Providence, RI, USA*
- P140 Genetic variants reveal additive contributions of the serotonergic and HPA axis pathways in the regulation of endocrine homeostasis
Betsy Ferguson, *Oregon National Primate Research Center, OHSU, Portland, OR, USA*

3:30pm – 5:30pm

Symposium XX

Salone Volterra

GABAA RECEPTORS EXPRESSING $\alpha 2$ SUBUNITS: A LINK BETWEEN RESPONSIVENESS TO STRESS AND DRUG ADDICTION?

Chair and Discussant: Dai Stephens, *University of Sussex, Brighton, UK*

S81 The GABAA $\alpha 2$ -subunit in conditioned anxiety and conditioned reward

Claire I. Dixon, *University of Sussex, Brighton, UK*

S82 Neurosteroid-sensitive $\alpha 4$ GABAA receptors in the accumbens: role in alcohol intake

Patricia H. Janak, *Gallo Center & Dept. of Neurology, UCSF, CA, USA*

S83 The α -subunits of the GABAA receptor: modulatory sites of alcohol drinking and fighting

Klaus A. Miczek, *Tufts University, Meford, MA, USA*

S84 GABAA alpha2 and alpha4 receptors in the nucleus accumbens medium spiny neurons; do they contribute to drug abuse?

Sarah L. King, *School of Psychology, University of Sussex, Brighton, UK*

S85 The actions of neurosteroids at $\alpha 2$ -GABAA receptors in stress-sensitive neuronal targets

Delia Belelli, *University of Dundee, Ninewells Hospital and Medical School, Dundee, UK*

7:00pm – 12:00am

Closing Dinner

Ristorante Molino d'Era