



The 2nd Munich Winter Conference on Stress

**A Max Planck Institute of Psychiatry / Weizmann
Institute of Science Conference**

Program



Saturday, March 16, 2019

15:00 – 19:00 **Arrival & Registration**

20:00 – 22:00 **Dinner**

Sunday, March 17, 2019

7:30 – 8:30 **Breakfast**

8:30 – 10:30 **Session 1: Stress-related pathologies: Challenges and directions**

Chairs: Mathias Schmidt & Alon Chen

Joshua Gordon, US

Priorities in Stress Research: a View from the U.S. National Institute of Mental Health

Tallie Z. Baram, US

Failure of maturation of molecularly-defined circuits after early-life adversity: a mechanism for human mental illness?

Jonathan Seckl, UK

Glucocorticoid metabolism in the brain: not yet lost in translation

Marian Joels, NL

Of stressed mice and men: Helping each other

10:30 – 11:00 **Open debate**

11:00 – 16:00 **Scientific group discussions / Outdoor activities**

16:00 – 19:00 **Session 2: Novel insights on stress and social behaviors**

Chair: Nic van der Wee

Inga Neumann, DE

Consequences of high brain oxytocin activity on social fear: sex and lactation

Carmen Sandi, CH

Metabolic involvement on the long-term programming of social behaviors by peripubertal stress

Daniel Bayless, US

A neural pathway for innate gender recognition

17:30 – 18:00

Coffee break

Gil Levkowitz, IL

Role of the neuroendocrine transcription factor Otp in the adaptive response to stressors

Nadine Gogolla, DE

State-dependent modulation of fear and anxiety through insular cortical circuits

19:00 – 19:30

Open debate

20:00 – 22:00

Dinner & Poster presentation I

Monday, March 18, 2019

7:30 – 8:30

Breakfast

8:30 – 10:30

Session 3: Stress-related psychopathologies I
Chair: Jaideep Bains & Xiao-Dong Wang

Kerry Ressler, US

Understanding Post-traumatic Stress: Translating Fear and Trauma from Genes to Circuits

Sonia Lupien, CA

Are we good judges of our stress? Association (and lack of) between physiological and psychological markers of stress in humans

Anna Beyeler, FR

Anatomical and functional organization of valence circuits in the amygdala and insular cortex

Allyson Friedman, US

The role of sex steroids on stress susceptibility and resilience

10:30 – 11:00

Open debate

11:00 – 16:00

Scientific group discussions / Outdoor activities

16:00 – 19:00

Session 4: Stress-related psychopathologies II

Chair: Johannes Bohacek & Oliver Bosch

Dominique de Quervain, CH

Stress, Genes and Memory

John Cryan, IE

A Gut (Microbiome) Feeling About Stress

Michael Fanselow, US

Stress Enhanced Fear Learning and its Sequelae

17:30 – 18:00

Coffee break

Kay M. Tye, US

A cortical-brainstem circuit predicts and controls the development of compulsive alcohol drinking

Alessio Attardo, DE

The impact of stress on hippocampal dynamics of connectivity and spatial representations

19:00 – 19:30

Open debate

20:00 – 22:00

Dinner & Poster presentation II

Tuesday, March 19, 2019

7:30 – 8:30	Breakfast
8:30 – 10:30	<u>Session 5: Hot topics and debate</u> Chair: Jim Herman <i>Selected student presentations and round table discussion</i> <i>Mirjam van Zuiden, NL</i> Prenatal adversity is a moderating factor of the effects of childhood and adulthood trauma exposure on late life mental health <i>Tatiana Korotkova, DE</i> Regulation of social behaviors by the lateral septum <i>Abigail M. Polter, US</i> Sex-specific regulation of the VTA GABA neurons by subchronic stress <i>Amalia Floriou-Servou, CH</i> Rapid reconfiguration of the functional connectome after chemogenetic locus coeruleus activation <i>Toni-Lee Sterley, CA</i> Social transmission of stress <i>Pablo Lopez, DE</i> Dissecting the HPA axis after chronic stress using single-cell transcriptomics
10:30 – 11:00	Open debate
11:00 – 16:00	Scientific group discussions / Outdoor activities
16:00 – 19:00	<u>Session 6: Novel stress-related circuits</u> Chair: Benno Roozendaal <i>Aniko Korosi</i> Early life stress: lasting effects on plasticity, metabolism and Alzheimer's disease

Byungkook Lim, US

Neural circuit mechanisms of early life stress-induced vulnerability to obesity

Mary-Kay Lobo, US

Molecular mediators of dendritic atrophy regulate stress susceptibility

17:30 – 18:00

Coffee break

Scott Russo, US

Motivational Circuitry of Aggression

18:30 – 19:30

Open debate and closing remarks

20:00 – 22:00

Dinner

Wednesday, March 20, 2019

7:30 – 12:00

Breakfast & Departure

Poster presentations I Sunday, March 17, 2019

Sergey Anpilov, IL

Oxytocin transforms group dynamics in mice by increasing aggression and repetitive behavior

Simone Astori, CH

Constitutive differences in corticosterone adaptation to stress are related to fear conditioning and sleep abnormalities in rats

Valeria Bonapersona, NL

The behavioral phenotype of early life adversity: a 3-level meta-analysis of preclinical studies

Joeri Bordes and Max Pöhlmann, DE

Pharmacological modulation of the psychiatric risk factor FKBP51 modulates efficiency of common antidepressant drugs

Elena Brivio, DE

Sex-specific signatures of acute stress in the paraventricular nucleus of the hypothalamus using single cell transcriptomics

Lea Brix and Alexander Häusl, DE

The co-chaperone FKBP51 shapes the acute stress response in the Paraventricular Nucleus of the Hypothalamus

Rob Buurstedde, NL

A short-list of GR targets implicated in glucocorticoid-enhanced memory consolidation in the male rat brain

Simon Chang, DE

Characterization of CRH/ CRH receptor neurocircuitries and their interaction with stress

Dipesh Chaudhury, AE

Effects of Social Stress on Circadian Rhythms and Sleep-Wake Cycle

Alireza Chenani, DE

Effects of stress on hippocampal activity patterns

David Csabai, HU

Quantave ultrastructural analysis of neuronal mitochondria in the medial prefrontal cortex of chronically stressed rats

Alec Dick, DE

Transcriptomic and epigenomic profiling in prefrontal cortical neurons following chronic stress

Jinlan Ding, NL

Late glucocorticoid receptor antagonism changes the outcome of adult life stress

Clara Engelhardt, DE

The impact of FKBP51 in regulating anxiety-related behavior in distinct brain regions

Sriparna Ghosal, CH

Implication of the mitochondrial fusion protein mitofusin 2 in the nucleus accumbens in anxiety-and depression-like behaviors

Cindy Grossmann, DE

Role of oxytocin on social fear conditioning in male mice

Katharina Gryksa, DE

Differential effects of chronic psychosocial stress on social and non-social fear conditioning in male mice

Jakob Hartmann, US

The involvement of SKA2, a novel GR interaction partner, in stress related psychiatric disorders

Jun Huang, CH

Roles of Nucleus Accumbens D1- and D2- medium spiny neurons in reward processing

Wataru Inoue, CA

Intrinsic plasticity as a neural correlate for stress habituation

Freddy Jeanneteau, FR

BDNF-dependent glucocorticoid signaling promotes learning-dependent synapse maintenance

Stoyo Karamihalev, DE

Gene expression profiling identifies brain region-specific networks underlying social dominance in mice

Alexandra Klein, DE

Dissecting the role of interoceptive insular cortical circuits in regulating learned fear

Jelle Knop, NL

The effects of different early-life rearing conditions on adult behavior and maternal care in heterozygous dopamine receptor D4 knock-out mice

Aron Kos, DE

Chronic stress regulated synaptic miR-217 controls anxiety-like behavior and stress susceptibility

Janssen M. Kotah, NL

The age-dependent effects of early-life stress exposure on hippocampal microglia and astrocytes in the APP/PS1 mouse model of Alzheimer's disease

Julia Lemos, US

Corticotropin releasing factor enhances the neuronal excitability of medium spiny projection neurons in the nucleus accumbens

Poster presentations II Monday, March 18, 2019

Julia Leschik, DE

BDNF overexpression in serotonergic neurons increases adult neurogenesis and confers protection against chronic stress

Srivaishnavi Loganathan, DE

Interactions of calcium channel (Cav1.2) circuitry with early life stress and their involvement in the pathogenesis of psychiatric disorders

Sofia Lopez, US

Corticosterone and dopamine activity in the nucleus accumbens change in a sex- and phenotype-dependent manner following Pavlovian conditioning

Paul J. Marvar, US

Central amygdala angiotensin Type 2 receptor (AT2R) activation reduces fear-related behavior

Marianella Masís, DE

Social fear conditioning in rats selectively bred for high anxiety-related behavior

Rohit Menon, DE

miR132 and the regulation of social fear - possible role in transgenerational inheritance of social preference

Eva Mikics, HU

Early social isolation-induced social deficits are linked to changes in prefrontal perineuronal nets and network organization

Patricia Molina, ES

Prefrontal cortex and stress: Identification of specific neuronal populations and their role in the vulnerability-resilience induced by stress

Iris Mueller, US

Adolescent conditioning affects fear expression and rate of safety learning during adult discriminative conditioning

Tobias Pohl, DE

Partner-loss induced neuroinflammation in prairie voles

Danai Riga, DE

Dynamic regulation of the extracellular matrix in the transition from stress to depression

Karla-Gerlinde Schraut, DE

Loss of the psychiatric risk factor SLC6A15 is associated with increased metabolic functions in hippocampal cell culture

Annabel K. Short, Tallie Z. Baram, US

Altered circuitry and low circulating estrogen protect estrous females from spatial memory impairments provoked by concurrent multiple acute stresses

Paromita Sen, DE

Effects of a bipolar disorder associated SNP on ADCY2 protein function and mouse behavior

Regis Shanley, US

Estrogenic activity in the ventral tegmental area modulates the behavioral response to stress

Francesca Spiga, UK

The long-term effects of synthetic glucocorticoid treatment on clock gene expression and on the inflammatory response to LPS in the rat brain are region specific

Julia Sulger, DE

Dissecting neuronal circuits for defensive sonic vocalization in mice

Amrutha Swaminathan, IL

Where do the origins of stress resilience lie?

Mate Toth, HU

Cognitive and emotional traits as vulnerability factors in an animal model of Posttraumatic Stress Disorder

Saulo Tractenberg, BR

Early life stress and unpredictable social stress during adolescence as predictors of anxiety related behaviors during adulthood

Jesús Úbeda-Contreras, ES

Effects of chronic adolescent controllable/uncontrollable stress at short- and long- term

Lidia Urbina, DE

The purinergic P2X7 receptor in diagnosis, prognosis and treatment of depression

Michael van der Kooij, DE

Altered CSF energy metabolism and reduced mitochondrial function of the prefrontal cortex of chronically stressed mice

Lotte van Doeselaar, DE

Testing an alternative method for chronic social defeat in female mice

Ghabiba Weston, DE

Effects of stress on in vivo hippocampal CA1 synaptic dynamics and CA1-dependent learning and memory

Xiao-Dong Wang, CN

Tactile modulation of memory and anxiety requires dentate granule cells along the dorsoventral axis

Susanne Wolf, DE

Impact of stress during pregnancy on behavior and microglia cellular senescence in the adult offspring