XVI Congress of the European Biological Rhythms Society

Lyon, France

25 - 29 August 2019
Dear colleagues, friends and EBRS participants,

It is our great pleasure to welcome you to the XVI Congress of the European Biological Rhythms Society (EBRS), from 25–29 August 2019, in Lyon, France.

This year’s congress brings together the top chronobiologists and sleep experts from around the world. They will tell us all about their most recent findings and best scientific stories, and what to expect in the future, in chronobiology and chronomedicine. The sessions cover molecular biology, non-visual photobiology, chrononutrition, chronomolecules, metabolism, imaging, mathematical modelling, big data, machine learning, shift work, cancer... And more!

The meeting will be a unique opportunity to share your ideas, benefit from exchanges and discussions with colleagues, and disseminate your own results on a worldwide stage. Trainees and early-career researchers will be offered a five-star Trainee Day with the best researchers in the field.

The conference will be attended by over 390 participants from 34 countries. And with 9 plenary lectures, 24 symposia, 2 panel discussions, 72 invited symposia speakers, 72 short communications, and over 200 posters, the week promises to be very exciting!

We look forward to seeing you in Lyon, and we hope you enjoy the congress.

Claude Gronfier
Congress Chair

Debra J. Skene
EBRS President

Yoshitaka Fukada
JSC President

in association with
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<td>Wednesday 28, August</td>
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<td>Thursday 29, August</td>
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<td>SHORT COMMUNICATIONS</td>
<td>16</td>
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<td>POSTERS</td>
<td>20</td>
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COMMITTEES & ORGANISATION

COMMITTEES

Organizing Committee

Claude Gronfier
Lyon Neuroscience Research Center

Alain Nicolas
Lyon Neuroscience Research Center

Francoise Perrot
Lyon Neuroscience Research Center

Scientific Committee

Steven Brown
Department of Pharmacology and Toxicology
University of Zurich
Switzerland

Claude Gronfier
Lyon Neuroscience Research Center
Inserm, CNRS, University of Lyon
France

Sato Honma
Graduate School of Medicine
Hokkaido University
Japan

Andries Kalsbeek
Netherlands Institute for Neuroscience
Amsterdam
The Netherlands

Martha Merrow (Chair)
Institute of Medical Psychology
Ludwig-Maximilian University (LMU)
Munich
Germany

Frank Scheer
Division of Sleep Medicine
Harvard Medical School
Boston
USA

Valérie Simonneaux
Institut des Neurosciences Cellulaires et Intégratives
Université Louis Pasteur
Strasbourg
France

EBRS2019 ORGANISATION

Organisation/Registration
contact@ebrs2019.com

BP 29
59370 Mons en Baroeul
**Dates and opening hours**

<table>
<thead>
<tr>
<th>Date</th>
<th>Congress</th>
<th>Registration</th>
<th>Poster Sessions</th>
<th>Exhibition</th>
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<tr>
<td>Sunday, 25 August</td>
<td>16:45 - 20:00</td>
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<td>09:00 - 16:20</td>
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<tr>
<td>Monday, 26 August</td>
<td>09:00 - 20:00</td>
<td>08:30 - 18:00</td>
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<td>Thursday, 29 August</td>
<td>09:00 - 18:30</td>
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<td>08:45 - 20:00</td>
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**Address venue**

Faculté de Médecine Laennec  
7, rue Guillaume Paradin  
69008 Lyon, France  
*Map and details are available on the website of the congress*

**Congress Dinner**

Wednesday, 28 August at 19:30  
Registration are closed

**Badges**

Each registered participant will receive a name badge upon arrival. For organisational and security reasons, we request that all participants and exhibitors wear their badges at all times during congress activities.

**Abstract book**

Abstract book is available on the website of the congress: [www.ebrs2019.com](http://www.ebrs2019.com)

**Wi-Fi**

Each registered participant will receive a login and a password upon arrival.
ACKNOWLEDGEMENT

EBRS2019 is grateful to the following institutions and organisations for their support of the XVI Congress of the European Biological Rhythms Society.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
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<tbody>
<tr>
<td>09:00 - 16:20</td>
<td><strong>TRAINEE DAY</strong>&lt;br&gt;Organized by the Young Researchers Committee of the EBRS. Program is available on the website of the congress.</td>
</tr>
<tr>
<td>14:00 - 16:30</td>
<td><strong>ATTENDEES REGISTRATION</strong></td>
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<tr>
<td>16:45 - 17:00</td>
<td><strong>CONGRESS OPENING</strong>&lt;br&gt;<em>Amphi 1</em></td>
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<tr>
<td>17:00 - 18:00</td>
<td><strong>PLENARY LECTURE</strong>&lt;br&gt;<strong>METABOLIC CONSEQUENCES OF BEHAVIORAL AND PATHOLOGICAL DISRUPTIONS OF THE CIRCADIAN SYSTEM</strong>&lt;br&gt;<em>E. van Cauter</em>&lt;br&gt;<em>Amphi 1</em>&lt;br&gt;<em>Chairs : Debra Skene &amp; Claude Gronfier</em></td>
</tr>
</tbody>
</table>
| 18:00 - 20:00| **WELCOME RECEPTION**<br>(DRINKS AND SNACKS WILL BE SERVED)**
08:45 - 09:00  WELCOME COFFEE

09:00 - 10:00  PLENARY : AXELROD LECTURE
MOLECULAR BASIS OF SEASONAL CHANGES IN BEHAVIOR
Chair : Andrew Loudon
T. Yoshimura

10:15 - 12:15  SYMPOSIUM 1
MOLECULAR MECHANISMS I
Chair : Florian Heyd

10:15  Cellular and molecular pathways from the visual system to the clock
neurons in Drosophila
F. Rouyer

10:45  Short Communications - See details in page 16

11:15  Coffee Break

11:45  Short Communications - See details in page 16

12:30  Space-time logic of the liver
F. Naef

13:00 - 14:30  LUNCH BREAK & POSTER SESSION 1
14:30 - 17:15
Amphi 1

**SYMPOSIUM 4**
THE IMMUNE SYSTEM AND DAILY TIMING
Chair: Andrew Loudon

- 14:30 > Circadian control of inflammation and bacterial infection in the lung  
  D. Ray
- 15:00 > Choreographing immunity - a role for the circadian clock  
  L. Ince
- 15:30 > The circadian clock of CD8 T cells modulates their early response  
  to vaccination and the rhythmicity of related signaling pathways  
  N. Cermakian
- 16:00 > Coffee Break
- 16:30 > Short Communications - See details in page 16

Amphi 3

**SYMPOSIUM 5**
NON-PHOTIC ENTRAINMENT: NOVEL CONNECTIONS FROM ENVIRONMENT TO CLOCKS
Chair: Shigenobu Shibata

- 14:30 > Timing of feeding schedules for circadian synchrony  
  C. Escobar
- 15:00 > Non-photic entrainment: novel connections from environment to clocks  
  H. Oster
- 15:30 > Light-independent function of the Suprachiasmatic nuclei to regulate  
  the food-uptake of mice  
  J. Ripperger
- 16:00 > Coffee Break
- 16:30 > Short Communications - See details in page 16

Amphi 4

**SYMPOSIUM 6**
NON-CIRCADIAN RHYTHMS
Chair: Helen Causton

- 14:30 > In the light of sun and moon  
  K. Tessmar-Raible
- 15:00 > Molecular basis of tidal rhythms in an intertidal crustacean  
  Eurydice pulchra  
  L. Zhang
- 15:30 > Once superabundant now at the brink of extinction – why  
  chronotopes matter  
  S. Monecke
- 16:00 > Coffee Break
- 16:30 > Short Communications - See details in page 16

17:30 - 18:30
Amphi 1

**PLENARY LECTURE**
INTERACTIONS OF CIRCADIAN RHYTHMS AND SLEEP WITH BASIC PHYSIOLOGY  
Chair: Martha Merrow

19:00 - 20:00
Amphi 4

**PANEL DISCUSSION**
REINVENTING SCIENCE COMMUNICATION: HOW CAN OUR PUBLIC RELATIONS HELP WITH TRANSLATION?  
Chairs: Martha Merrow & Samer Hattar

A. Sehgal
K. Wu
The Honorable Pavel Svoboda
TUESDAY 27 AUGUST

08:45 - 09:00  WELCOME COFFEE

09:00 - 10:00  PLENARY : JSC LECTURE
MODIFICATIONS OF CRY PROTEINS BOLSTER CIRCADIAN CLOCK OSCILLATION
Chair : Ken Ichi Honma

10:15 - 13:00  SYMPOSIUM 7
MOLECULAR MECHANISMS II
Chair : Urs Albrecht

10:15  > Consequences of time- and region-specific ablations of an SCN-enriched mouse transcription factor  P. Nolan
10:45  > ATPase-based *in vitro* Screening for KaiC Clock Mutants in Cyanobacteria  S. Akiyama
11:15  > Coffee Break
11:45  > Dynamic Plasticity of the Arabidopsis Circadian Oscillator in Response to Sugar Signals  A. Webb
12:15  > Short Communications - *See details in page 17*

Amphi 3  SYMPOSIUM 8
CLOCKS, SLEEP AND HEALTH (ESRS-EBRS JOINT SYMPOSIUM)
Chairs : Debra Skene & Tom de Boer

10:15  > The moon is a weak Zeitgeber for menstrual cycles in women  C. Helfrich-Förster
10:45  > MTNR1A variant across life span  S. Sulkava
11:15  > Coffee Break
11:45  > Neural circuits underlying sleep structure and oscillation  A. Adamantidis
12:15  > Short Communications - *See details in page 17*

Amphi 4  SYMPOSIUM 9
MICROBIAL CLOCKS
Chair : Martha Merrow

10:15  > Circadian rhythms in non-photosynthetic bacteria  Z. Chen
10:45  > Challenging the Topological Plasticity of a Core-Oscillator: Exploring the Evolution of Circadian Circuitry and Visualizing the Emergence of a Primordial Visual System Capable of Eidetic Memory  L. Larrondo
11:15  > Coffee Break
11:45  > Circadian Organization of the Enteric Commensal Bacterium, *Klebsiella aerogenes*  V. Cassone
12:15  > Short Communications - *See details in page 17*

13:00 - 14:30  LUNCH BREAK & POSTER SESSION 2
14:30 - 17:15  
**SYMPOSIUM 10**  
**CLOCK NETWORKS IN THE BRAIN**  
*Chair : Rae Silver*

14:30  > Multiple brain clocks regulating behavior rhythms of mammals  
*S. Honma*

15:00  > Imaging the Intact SCN network in vivo  
*A. Davidson*

15:30  > Astrocytic-neuronal communication in the specification of circadian time  
*M. Brancaccio*

16:00  > Coffee Break

16:30  > **Short Communications - See details in page 17**

**Amphi 1**

**SYMPOSIUM 11**  
**THE CLOCK AND PUBLIC HEALTH**  
*Chair : Charles Czeisler*

14:30  > Light at night, circadian rhythms and public health  
*C. Czeisler*

15:00  > Shift work involving circadian disruption, cancer risk, and beyond: current state of the science  
*E. Schernhammer*

15:30  > Night work and breast cancer risk: a combined analysis of 5 population-based case-control studies  
*E. Cordina-Duverger*

16:00  > Coffee Break

16:30  > **Short Communications - See details in page 17**

**Amphi 4**

**SYMPOSIUM 12**  
**PERIPHERAL CLOCKS**  
*Chair : Charna Dibner*

14:30  > Circadian Medicine for Treatment of Cardiovascular Disease  
*T. Martino*

15:00  > Glucocorticoid receptor activation and the diurnal rhythm of the Thiazide-sensitive NaCl co-transporter  
*J. Ivy*

15:30  > HbA1c levels in Type 2 diabetic individuals predict cellular circadian clock properties  
*F. Sinturel*

16:00  > Coffee Break

16:30  > **Short Communications - See details in page 17**

17:30 - 18:30  
**PLENARY : KAPPERS LECTURE**  
**WHAT THE MAMMALIAN EYE TELLS THE MAMMALIAN SCN**  
*Chair : Andries Kalsbeek*

19:00 - 20:00  
**PANEL DISCUSSION**  
**PHILOSOPHY OF TIME**  
*Chair : Aurélien Demars*

*G. Manella*

*R. Aviram*
WEDNESDAY 28 AUGUST

08:45 - 09:00  WELCOME COFFEE

09:00 - 10:00  PLENARY : STOCKGRAND LECTURE
Amphi 1  SHEDDING NEW LIGHT ON DELAYED SLEEP-WAKE PHASE DISORDER
Chair : Debra Skene
S. Rajaratnam

10:15 - 13:00  SYMPOSIUM 13
Amphi 3  METABOLISM : DO CLOCKS CONTROL EVERYTHING?
Chair : Etienne Challet

10:15  Circadian misalignment: adverse health consequences and development of countermeasures
F. Scheer

10:45  Your brain on junk food, interaction with the timing system
S. LaFleur

11:15  Coffee Break

11:45  Restoration of Rhythms in Clock Deficient Mice Relieves their Mania Symptom
E. Zhang

12:15  Short Communications - See details in page 18

Amphi 4  SYMPOSIUM 14
CLOCKS ACROSS LIFE : CIRCADIAN MECHANISMS DURING DEVELOPMENT AND AGEING
Chair : Alena Sumova

10:15  The central clock resilience develops via critical developmental stages
A.Sumova

10:45  Developmental program and environmental reprogramming of mammalian circadian regulation system
K. Yagita

11:15  Coffee Break

11:45  Differential effects of aging on the central circadian clock
S. Michel

12:15  Short Communications - See details in page 18

Amphi 1  SYMPOSIUM 15
CIRCADIAN AND NON-VISUAL EFFECTS OF LIGHT
Chair : Roelof Hut

10:15  A non-canonical inhibitory circuit dampens behavioral sensitivity to light
T. Schmidt

10:45  Synaptic Specializations of Melanopsin- Retinal Ganglion Cells in Multiple Brain Regions Revealed by Genetic Probes for Light- and Electron Microscopy
S. Panda

11:15  Coffee Break

11:45  Time-based dynamics of non-visual effects of light in humans: The importance of exposure duration
S. Lockley

12:15  Short Communications - See details in page 18

13:00 - 14:30  LUNCH BREAK & POSTER SESSION 3
EBRS AGM (Amphi 1) – open to all EBRS members
### SYMPOSIUM 16
**CLOCKS IN THE REAL WORLD: FROM BEDSIDE TO BIG DATA**  
*Chair: Till Roenneberg*

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>14:30</td>
<td>The power of actimetry in clock- and sleep-related field studies</td>
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<tr>
<td>15:00</td>
<td>Circadian information in real time from remote patients for precision chronomedicine</td>
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<tr>
<td>15:30</td>
<td>Measuring circadian indices in patient populations: tips from cirrhosis</td>
</tr>
<tr>
<td>16:00</td>
<td>Coffee Break</td>
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<tr>
<td>16:30</td>
<td><strong>Short Communications</strong> - <em>See details in page 18</em></td>
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</tbody>
</table>

### SYMPOSIUM 17  
**MENTAL HEALTH**  
*Chair: Martin Ralph*

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>14:30</td>
<td>A novel circuit underlies the effects of light on mood in mice</td>
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<tr>
<td>15:00</td>
<td>Role of circadian clocks in dopaminergic neurodegeneration</td>
</tr>
<tr>
<td>15:30</td>
<td>What is the Role of the SCN in Learning Ability and Disability?</td>
</tr>
<tr>
<td>16:00</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>16:30</td>
<td><strong>Short Communications</strong> - <em>See details in page 18</em></td>
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</table>

### SYMPOSIUM 18  
**THE GUT MICRO BIOME AND THE CIRCADIAN CLOCK**  
*Chair: Isabelle Carre*

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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</thead>
<tbody>
<tr>
<td>14:30</td>
<td>Impact of Circadian and Sleep Disruption on the Human Microbiome</td>
</tr>
<tr>
<td>15:00</td>
<td>(A)rhythmicity of the Human Microbiome in Health and Disease</td>
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<tr>
<td>15:30</td>
<td>Circadian disruption challenges the resiliency of intestinal microbiota community and intestinal barrier function</td>
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<tr>
<td>16:00</td>
<td>Coffee Break</td>
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<tr>
<td>16:30</td>
<td><strong>Short Communications</strong> - <em>See details in page 18</em></td>
</tr>
</tbody>
</table>

### 17:30 - 18:30  
**PLENARY: GWINNER LECTURE**  
**INTER- AND INTRA-SPECIFIC TEMPORAL PARTITIONING: ACTIVITY PATTERNS AND CHRONOTYPES**  
*Chair: Steven Brown*  
*N. Kronfeld-Schor*

### 19:30  
**CONGRESS DINNER**
### THURSDAY 29 AUGUST

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:45 - 09:00</td>
<td><strong>WELCOME COFFEE</strong></td>
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<tr>
<td>09:00 - 10:00</td>
<td><strong>PLENARY LECTURE</strong></td>
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<td>CRYPTOCHROMES INTEGRATE CIRCADIAN RHYTHMS</td>
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<td>WITH METABOLISM AND GENOME PROTECTION</td>
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<td>Chair: Frank Scheer</td>
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<td>10:15 - 13:00</td>
<td><strong>SYMPOSIUM 19</strong></td>
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<tr>
<td></td>
<td>BIOMARKERS AND THEIR APPLICATION TO CHRONOMEDICINE</td>
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<td>Chair: John Hogenesch</td>
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<tr>
<td>10:15</td>
<td>&gt; High-accuracy determination of internal circadian time from a single blood sample</td>
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<td>10:45</td>
<td>&gt; Loss of circadian rhythm in critically ill patients: relevant for long-term damage?</td>
</tr>
<tr>
<td>11:15</td>
<td>&gt; Coffee Break</td>
</tr>
<tr>
<td>11:45</td>
<td>&gt; Novel Approaches to Diagnose Circadian Rhythm Disorders</td>
</tr>
<tr>
<td>12:15</td>
<td>&gt; Short Communications - See details in page 19</td>
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<tr>
<td>Amphi 1</td>
<td><strong>SYMPOSIUM 20</strong></td>
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<tr>
<td></td>
<td>MOLECULAR MECHANISM III</td>
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<td>Chair: David Virshup</td>
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<tr>
<td>10:15</td>
<td>&gt; High-throughput discovery of genetic determinants of circadian entrainment and its application in humans</td>
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<tr>
<td>10:45</td>
<td>&gt; Hacking genetics, wearables and video games to measure and understand human circadian rhythms</td>
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<tr>
<td>11:15</td>
<td>&gt; Coffee Break</td>
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<tr>
<td>11:45</td>
<td>&gt; CK1δ/ε regulation of the PER2 phosphoswitch</td>
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<tr>
<td>12:15</td>
<td>&gt; Short Communications - See details in page 19</td>
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<tr>
<td>Amphi 3</td>
<td><strong>SYMPOSIUM 21</strong></td>
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<tr>
<td></td>
<td>EMERGENT RHYTHMS IN THE BRAIN</td>
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<td></td>
<td>Chair: Hugh Piggins</td>
</tr>
<tr>
<td>10:15</td>
<td>&gt; Network-level heterogeneity revealed through developmental patterning of neuropeptide expression in the master circadian clock</td>
</tr>
<tr>
<td>10:45</td>
<td>&gt; Pigment-dispersing factor (PDF) affects different neuronal circuits of the circadian clock in the Madeira cockroach <em>Rhyparobia (Leucophaea) maderae</em></td>
</tr>
<tr>
<td>11:15</td>
<td>&gt; Coffee Break</td>
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<tr>
<td>11:45</td>
<td>&gt; Excitation and hyperexcitation in the mammalian master circadian clock: past, present and future</td>
</tr>
<tr>
<td>12:15</td>
<td>&gt; Short Communications - See details in page 19</td>
</tr>
<tr>
<td>Amphi 4</td>
<td><strong>LUNCH BREAK &amp; POSTER SESSION 4</strong></td>
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<td>13:30 - 14:30</td>
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</table>

*K. Lamia*  
*A. Kramer*  
*C. Spies*  
*P. Zee*  
*D. Forger*  
*D. Virshup*  
*J. Evans*  
*J. Plath*  
*M. Belle*
14:30 - 17:15  SYMPOSIUM 22  
CIRCADIAN MECHANISMS CONTROLLING LEARNING, MEMORY AND COGNITION  
Chair : Martin Ralph  
14:30  > Melatonin and clock genes – circadian cues for shaping time-of-day-dependent learning efficiency?  
J. Stehle  
15:00  > Importance of brain oscillations in sleep and memory: similarity and difference between human and rodent  
K. Benchenanne  
15:30  > A neural basis for time memory  
M. Ralph  
16:00  > Coffee Break  
16:30  > Short Communications - See details in page 19

Amphi 4  SYMPOSIUM 23  
CHRONONUTRITION AND CHRONOMOLECULES: FROM CIRCADIAN MECHANISMS TO CIRCADIAN THERAPIES  
Chair : Robert Dallmann  
14:30  > Targeting Entrainment Pathways to Develop Chronomolecules  
A. Jagannath  
15:00  > Circadian metabolism and meal timing in humans  
J. Johnston  
15:30  > Timing of Macronutrient Intake: Underlying Mechanisms and Endocrine Outcomes  
O. Froy  
16:00  > Coffee Break  
16:30  > Short Communications - See details in page 19

Amphi 1  SYMPOSIUM 24  
OMICS AND MACHINE LEARNING: AI-DRIVEN APPROACHES TO UNDERSTANDING CIRCADIAN FUNCTION  
Chair : Bharath Ananthasubramaniam  
14:30  > Using Gene Expression to Tell Time  
R. Braun  
15:00  > Subcellular Circadian -Oomics: What comes out depends on what goes in…and how you slept  
S. Brown  
15:30  > From Chronotype GWAS to biology using Integrative Omics  
R. Saxena  
16:00  > Coffee Break  
16:30  > Short Communications - See details in page 19

17:30 - 18:30  PLENARY LECTURE  
BUILDING CIRCADIAN MEDICINE IN A PEDIATRIC HOSPITAL  
Chair : Francis Levi  
J. Hogenesch

18:30 - 19:30  AWARDS AND CLOSING REMARKS  
Amphi 1
**Molecular Mechanism I**  
Chair: Florian Heyd

- SC-1 Understanding the molecular mechanisms of FREQUENCY protein isoforms in controlling the Neurospora circadian clock  
  J. Guo, et al.
- SC-2 AKT phosphorylation undergoes cell autonomous and clock independent oscillations  
  R. Aviram, et al.
- SC-3 Cyclin Dependent Kinase 5 (CDK5) Regulates the Circadian Clock  
  U. Albrecht, et al.
- SC-77 Epigenetic control of the mammalian circadian clock by the histone variant H2A.Z.  
  H. Bayer, et al.
- SC-78 The Circadian Transcription Factor KLF10 is an Important Regulator of the Carbohydrate responsive transcriptome in Liver  
  M. Teboul, et al.

**Molecules and circuits controlling REM and NREM cycles (JSC)**  
Chair: Hiroki Ueda

- SC-4 SIK3 signaling: Exploring the missing link between circadian clock and sleep  
  N. Hayasaka, et al.
- SC-5 Circadian permeability of an In Vitro Tri-Culture Model of Blood-Brain-Barrier  
  S. Kumar, et al.
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Glucose uptake and GLUT1 expression exhibit a circadian rhythm in the arcuate nucleus of the rat

Immunocytochemical demonstration of the TSH receptor (TSHR) in transfected NIH/3T3 cells, mediobasal hypothalamus and thyroid gland of C3H mice

The circadian casein kinase 1? tau mutation impacts on circadian phase and pulmonary inflammatory response in mice

Does a poorly-functioning circadian clock constitute a risk factor for (genetically determined) retinal disease?

High-latitude drosophilids do not maintain circadian behavioural rhythmicity under constant darkness

Differential phase resetting of metabolic markers relative to central clock markers during simulated shift work

Light during the day along with feeding during darkness is necessary to maintain metabolic health in rats

Exposure to dim light at night can promote pro-inflammatory state in rats

Glucose uptake and GLUT1 expression exhibit a circadian rhythm in the arcuate nucleus of the rat

Period 1 inactivation alters behavioral and morphological phenotypes in C3H mice

Chaperone-mediated autophagy regulates the circadian clock

Entrainment of Circadian System and Sleep to Extremely Long Photoperiods in Modern Life and Nature

Repetitive senescent human cells possess altered circadian clocks with a prolonged period and delayed peak-time

Light-dark cycle phase shifts dampen peripheral clocks, but chronic dampening does not result in obesity or glucose intolerance

Circadian rhythm of glucagon-like peptide 2 immunoreactivity in the rat dorsomedial hypothalamus

Investigating night shift work and breast cancer risk within the Nightingale Study: first results and methodological considerations.

Altered light induced EGR1 gene expression in the SCN of PACAP deficient mice

Social jetlag and prostate cancer incidence in albertaõs tomorrow project: A prospective cohort study

Early chronotype associates with advanced activity rhythms and circadian phase in a small rural town in Brazil (the Baependi Heart Study cohort)

The effect of timed food availability and intraspecific interaction on free-running period in golden spiny mice
The role of a light-receptive Cryptochrome in the circalunar clock of Platynereis dumerilii

Circadian misalignment and low light exposure are associated to depressive symptoms in rural communities (Quilombos) of southern Brazil

Relationships between Melatonin Suppression by Light and Circadian Rhythm in Children

Effect of exogenous melatonin on sleep quality and duration among permanent night workers

Two different photoreceptors are required for circalunidian timing of swarming onset in Platynereis dumerilii

The effects of time-restricting eating on metabolic syndrome — A trial in the Swiss population (SwissChronoFood)

The thyroid clock is sustained in VPAC2 receptor knockout mice

Average chronotype of countries in the Greenwich time zone in winter and summer

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