18th Congress of the European Sleep Research Society
Innsbruck, Austria
September 12-16, 2006

FINAL PROGRAMME

www.esrs2006.at
www.esrs.org
18th Congress of the European Sleep Research Society (ESRS)

Satellite Symposium

Narcolepsy
Multi-Symptom Therapeutic Approach

Innsbruck Room, Innsbruck Congress Center, Austria
Wednesday, September 13th at 8:00 am
(Breakfast provided)

Scientific advances in the pathophysiology of narcolepsy
Sebastiaan Overeem (The Netherlands)

Pitfalls in the management of narcolepsy
Isabelle Arnulf (France)

Sodium oxybate: a new drug for the treatment of narcolepsy
Geert Mayer (Germany)

Supported by UCB.
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LOCAL ORGANISERS

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Werner Poewe
Innsbruck Medical University
Department of Neurology
Anichstraße 35
A-6020 Innsbruck, Austria
T: +43 512 504 23811
F: +43 512 504 23842
E: birgit.ho@uibk.ac.at

CONGRESS SECRETARIAT

(registration, accommodation, excursions)

PCO Tyrol Congress
Rennweg 3
A-6020 Innsbruck, Austria
T: +43 512 575600
F: +43 512 575607
E: esrs2006@come-innsbruck.at
I: www.pco-tyrolcongress.at

INDUSTRIAL EXHIBITION

med.ex GmbH
Ralph Kerschbaumer
Rennweg 3
A-6020 Innsbruck, Austria
T: +43 512 5936185
F: +43 512 5936189
E: ralph@medex.co.at
I: www.medex.co.at
COMMITTEES

ESRS board of officers

President: Thomas Pollmächer, Ingolstadt, Germany
Vice-President: Fabio Cirignotta, Bologna, Italy
Secretary: Diego Garcia-Borreguero, Madrid, Spain
Ass. Secretary: Roberto Amici, Bologna, Italy
Treasurer: Claudio Bassetti, Zurich, Switzerland
Past President: Irene Tobler, Zurich, Switzerland

Scientific committee

Chairman : Pierre Maquet, Liège, Belgium
Members : Christian Cajochen, Basel, Switzerland
Claude Gronfier, Bron, France
Hanspeter Landolt, Zurich, Switzerland
Patrick Lévy, Grenoble, France
Rosa Peraita-Adrados, Madrid, Spain
Dieter Riemann, Freiburg, Germany

Local organising committee

Chairs: Birgit Högl, Innsbruck
Werner Poewe, Innsbruck
Members: Peter Anderer, Vienna
Josef Bolitschek, Steyr
Elisabeth Brandauer, Innsbruck
Birgit Frauscher, Innsbruck
Boris Fugger, Villach
Siëlle Gasser, Villach
Viola Gschiessner, Innsbruck
Brigitte Holzinger, Vienna
Chris Kähl, Innsbruck
Reinhold Kerbl, Graz
Gerhard Klösch, Vienna
Michael Lehofer, Graz
Wolfgang Mallin, Graz
Rainer Popovic, Melk
Bernd Saletu, Vienna
Gotthard Tribl, Vienna
Josef Zeitlhofer, Vienna
ORGANISING SOCIETY
EUROPEAN SLEEP RESEARCH SOCIETY
www.esrs.org

supported by the
AUSTRIAN ASSOCIATION OF SLEEP MEDICINE AND
SLEEP RESEARCH
www.schlafmedizin.at

ESRS CONGRESSES

1972  Basel
1974  Rome
1976  Montpellier
1978  Tirgu-Mures
1980  Amsterdam
1982  Zurich
1984  Munich
1986  Szeged
1988  Jerusalem
1990  Strasbourg
1992  Helsinki
1994  Florence
1996  Brussels
1998  Madrid
2000  Istanbul
2002  Reykjavik
2004  Prague
2006  Innsbruck
2008  Glasgow
Dear colleagues,

Welcome to the 18th Congress of the European Sleep Research Society! The board of ESRS officers and the Austrian Sleep Research Association as local organizer welcome you warmly to Innsbruck, Austria.

The ESRS board, the society’s scientific committee and the local organizing committee have strived to consolidate from your submissions an outstanding programme including cutting edge original research in the poster and oral sessions, scientific symposia covering novel developments in both basic and clinical sleep research, four timely and excellent state of the art lectures, six debates on hot topics of high importance, as well as clinical case and video sessions.

We are happy to welcome particularly the young investigators, 60 of whom have been selected for a travel grant. In addition, we have selected 4 outstanding presentations of young researchers for a special Young Scientist’s Symposium.

The society’s biannual congress is also the traditional opportunity to award a number of prices such as the Sanofi-Aventis research grant, the Helgi Kristbjarnarson’s award, the ESRS-Weinmann young investigators mobility award, and for the first time, the ESRS-Alliance chronosleep award.

We want to express our gratitude to the industrial companies who support the congress, and are glad to announce that there is an excellent participation this year. You will be able to appreciate this in the industrial exhibition, and in the satellite symposia and breakfast seminars organized on various topics.

We hope you will enjoy an outstanding conference. While relaxing from the sessions, you will be able to enjoy the beauty of the city of Innsbruck and its surroundings, the Tyrolean Alps. The local organizers have put together an attractive programme for accompanying persons, and an attractive social programme.

At the opening of the conference, you will listen to an outstanding harpsichord concert by the internationally well known Innsbruck musician Peter Waldner. He will play exclusively for the delegates of the conference sonatas and variations by Wolfgang Amadeus Mozart.

The opening of the conference will be accompanied by filmic impressions of the mountains of Innsbruck and by festive music by the Innsbruck Trumpet Consort, who are part of the world famous consort for ancient music by Nikolaus Harnoncourt. The ESRS party will take place at the Hotel Grauer Bär right in the heart of Innsbruck and in walking distance to the conference centre.

We are looking forward to a stimulating and exciting conference, and thank all our members and guests for their active contributions!

Thomas Pollmächer

Birgit Högl
Visit the ESRS 2008 Stand near Registration

ESRS 2008 Secretariat
4B, 50 Speirs Wharf
Port Dundas
Glasgow G4 9TH

Tel: +44 (0)141 331 0123
Fax: +44 (0)141 331 0234
Email: info@esrs2008.com

WWW.ESRS2008.COM
GENERAL INFORMATION

Congress Venue
The meeting venue is «Congress Innsbruck», a state-of-the-art convention centre that has won the worldwide AIPC Apex Award «best congress centre 2001». It is located adjacent to the Old Town, i.e. in walking distance to most attractions, museums, and hotels.

Congress Innsbruck
Rennweg 3
A-6020 Innsbruck
www.come-innsbruck.at

Language
The official language of the congress is English. No simultaneous interpretation facilities will be provided during the conference.

ESRS booth
The ESRS booth is located in the foyer of the ground floor near the registration desk.

Congress Secretariat
PCO Tyrol Congress
Rennweg 3
A-6020 Innsbruck, Austria
T: +43 512 575600
F: +43 512 575607
E: esrs2006@come-innsbruck.at
I: www.pco-tyrolcongress.at

Registration desk at the Congress Innsbruck
The registration desk will be located on the ground floor of the Congress Innsbruck. Opening hours are as follows:

Tuesday, 12 September 07:30 – 18:30
Wednesday, 13 September 07:30 – 18:30
Thursday, 14 September 07:30 – 18:00
Friday, 15 September 07:30 – 18:00
Saturday, 16 September 07:30 – 16:00

On site registration fees
Full ESRS members * € 450,00
Non-members ESRS € 550,00
Students/technicians** € 275,00

* This fee applies to full ESRS members only, and not to associate members through their national societies
** Student registration must include a reference letter from the department head or chair for verification
**Registration fees include**
- admission to scientific sessions and industrial exhibition
- programme booklet
- mini programme
- abstract book & CD
- conference bag
- welcome reception & concert
- coffee breaks

**Teaching courses**
All teaching courses take place on Tuesday, 12 September. Registration for these courses has to be done separately by filling in the appropriate section on the registration form and is not included in the registration fees. Please note that places are limited.

**Certificate of attendance**
All registered delegates receive a certificate of attendance at the registration desk.

**Trade exhibition**
Within the scope of the 18th ESRS Congress, a trade exhibition of pharmaceutical companies, manufacturers of medical equipment and publishers is held in hall Dogana.

**Coffee breaks and refreshments**
Coffee and tea will be served during the official coffee breaks. Outside these official coffee breaks, refreshments are available from cash bars in the Congress Innsbruck.

**Lunch**
is not included in the registration fee. However, there is a restaurant at the congress centre and some 160 bars, cafés and restaurants within walking distance to the congress centre.

**City transportation**
There is a good public transport system in Innsbruck and its surroundings. Most buses operate until midnight. Detailed information on bus schedules is available at your hotel or at the conference centre. Tickets can be pre-purchased from tobacconists or directly in the buses.

**Parking**
There is an underground carpark at the Congress Centre. Participants obtain tickets at reduced rates from the doorman’s booth. Please note that these reduced fares only apply to the Congress Garage and not to the adjacent City Garage parking facilities. Street parking in the city is available but limited to 90 minutes (indicated by a blue line). Tickets have to be purchased from a blue parking meter, where the appropriate fees are indicated. Many hotels also have parking facilities. Please check when you do your hotel reservation.

**Currency**
The official currency is the EURO (€). Major credit cards are accepted in many hotels, shops and restaurants. Automatic teller machines (ATMs) are also available throughout the city.
Internet Access / Wireless LAN
Free internet stations will be available in the exhibition area and close to the registration area. Wireless LAN for individual internet access at a rate of 11 mbps is also available; access codes may be purchased at the registration desk. Rates: 3 hour access € 12.50; 24 hour access € 60 (to be used within 7 days).

Name badges
All registered participants and exhibitors receive a name badge together with their registration documents. Please make sure to wear your badge at all times while attending the meeting, exhibition and social events.

Art Exhibition
During the congress the exhibition »Interface Upgrade« by the Austrian artist Andrijana Stefanic will take place.

ESRS 2006 stamp
Please collect your personal copy of the ESRS 2006 stamp from the ÖGSM/ ASRA booth in the Europa Foyer next to the registration area (designed by Andrijana Stefanic).

Weather/ Climate
With a mountain chain to protect it from the cold northern winds, Innsbruck enjoys a mild alpine climate. Summer and autumn especially tend to bring long periods of fine weather. The average temperature for September is 15-20° Celsius (59-68 Fahrenheit) and usually there is little rainfall. Isolated thunderstorms and rain showers may develop sometimes in the late afternoon or evening.

Liability and insurance
Neither the organisers, nor the congress secretariat or other suppliers accept liability for any injury, loss or damage, arising from accidents or other situations during, or as a consequence of the congress. Kindly check your personal insurance.
### TUESDAY, 12 Sep

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<td>08.30-10.30</td>
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<td>Teaching Course 1: In vivo neurochemistry and sleep regulation</td>
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<td>Grenoble</td>
<td>Teaching Course 2: RLS: clinical evaluation and treatment strategies</td>
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<td>09.30-12.30</td>
<td>Strassburg</td>
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<td>11.00-13.00</td>
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<td>Grenoble</td>
<td>Teaching Course 4: Testing the autonomous function during sleep</td>
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<td>Strassburg</td>
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<td>Teaching Course 6: What makes a good paper?</td>
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### WEDNESDAY, 13 Sep

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<td>Innsbruck</td>
<td>Symposium 2: What is delayed sleep phase syndrome?</td>
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<td>11.00-13.00</td>
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<td>Innsbruck</td>
<td>Symposium 5: Possible mechanisms contributing to memory consolidation during sleep</td>
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<td>Symposium 6: Autonomic tone during sleep: from basic physiology to clinical practice</td>
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<td>Foeyers</td>
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<td>Keynote lecture 4</td>
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<td>19.00-20.30</td>
<td>Brüssel</td>
<td>Industrial Symposium 6: Alliance Pharmaceutical Ltd.</td>
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<th>Event Description</th>
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<td>Europa Foyer</td>
<td>Registration &amp; Media check</td>
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<tr>
<td>07:30-08.30</td>
<td>Innsbruck</td>
<td>Symposium 7: Respironics</td>
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<td>08.30-10.30</td>
<td>Tirol</td>
<td>Symposium 7: New findings on the pathogenesis and pathophysiology of REM sleep behaviour disorder (RBD)</td>
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<tr>
<td>07.30-08.30</td>
<td>Innsbruck</td>
<td>Symposium 8: Detection of sleepiness in the work and traffic environment</td>
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<td>10.30-11.00</td>
<td>Dogana</td>
<td>Coffee break</td>
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<tr>
<td>11.00-13.00</td>
<td>Tirol</td>
<td>Oral Presentations 5: Sleep breathing disorders</td>
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<td>11.00-13.00</td>
<td>Innsbruck</td>
<td>Oral Presentations 6: Sleep habits and health consequences</td>
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<td>10.30-11.00</td>
<td>Brüssel</td>
<td>Oral Presentations 7: Human sleep neurophysiology</td>
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<td>11.00-13.00</td>
<td>Freiburg</td>
<td>Oral Presentations 8: Biological rhythms and non classical photoreception</td>
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<tr>
<td>13.00-14.00</td>
<td>Tirol</td>
<td>Lunch break</td>
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<tr>
<td>14.00-15.00</td>
<td>Tirol</td>
<td>Clinical case presentations 1: Cyclic alternating pattern (CAP)</td>
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<tr>
<td>15.00-16.30</td>
<td>Foyers</td>
<td>Poster Presentations 3 (P242-P379)</td>
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<td>16.30-18.30</td>
<td>Tirol</td>
<td>Oral Presentations 9: Sleep deprivation</td>
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<tr>
<td>16.30-18.30</td>
<td>Innsbruck</td>
<td>Oral Presentations 10: Physiology, endocrinology and metabolism</td>
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<tr>
<td>13.00-14.00</td>
<td>Brüssel</td>
<td>Oral Presentations 11: Restless legs syndrome</td>
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<td>13.00-14.00</td>
<td>Freiburg</td>
<td>Oral Presentations 12: Basic sleep mechanisms</td>
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<td>20.00</td>
<td>Hotel Grauer Bär</td>
<td>ESRS Party</td>
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## SATURDAY, 16 Sep

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<td>07:30-16.00</td>
<td>Dogana</td>
<td>Exhibition</td>
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<tr>
<td>07:30-16.00</td>
<td>Europa Foyer</td>
<td>Registration &amp; Media check</td>
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<tr>
<td>07:30-08.30</td>
<td>Innsbruck</td>
<td>Symposium 8: GlaxoSmithKline</td>
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<td>08.30-10.30</td>
<td>Tirol</td>
<td>Symposium 10: Sleep and thermoregulation</td>
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<td>08.30-10.30</td>
<td>Innsbruck</td>
<td>Symposium 11: Inter-individual differences in sleep and sleep regulation</td>
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<td>Foyers</td>
<td>Poster Presentations 4 (P380-P543)</td>
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<td>Lunch break</td>
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<td>13.00-14.00</td>
<td>Tirol</td>
<td>Clinical case presentations 2: Insomnia</td>
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<td>14.00-16.00</td>
<td>Tirol</td>
<td>Symposium 13: Mobile communication and sleep</td>
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<td>14.00-16.00</td>
<td>Innsbruck</td>
<td>Symposium 14: Genetics of sleep and its disorders</td>
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<td>16.00-16.30</td>
<td>Brüssel</td>
<td>Symposium 15: Augmentation: a specific problem in the long-term treatment of RLS</td>
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<td>16.00-16.30</td>
<td>Tirol</td>
<td>Closing Ceremony</td>
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<td>16.30-17.00</td>
<td>Foyer</td>
<td>Farewell Cocktail</td>
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SPONSORS OF PRIZES AND AWARDS

ESRS Sanofi-Aventis research grants
As during earlier ESRS conferences, Sanofi-Aventis offers again 4 research grants for any area of sleep research. The grants will amount to 11,000 Euro each and will be awarded during the opening ceremony.

ESRS Alliance chronosleep travel awards
For the first time Alliance Pharmaceutical, UK, sponsors 6 travel awards of 900 £ each. Grants will be awarded during the opening ceremony to young researchers to enable the presentation of their scientific work at international conferences.

Helgi Kristbjarnarson's awards
The Icelandic Society of Sleep Medicine will give five Helgi Kristbjarnarson awards of €1,000 each to the best abstracts submitted. The awards will be presented during the closing ceremony.

ESRS-Weinmann young investigators mobility award
Weinmann Geräte für Medizin GmbH has sponsored two travel grants for young scientists, which will be awarded during the closing ceremony.

F. Hoffmann-La Roche grant
F. Hoffmann-La Roche has sponsored an unrestricted educational grant in the amount of SFR 9,000,- for this congress.
INFORMATION FOR AUTHORS AND CHAIRPERSONS

Information for speakers

All rooms are equipped with data projector and a PC for PowerPoint-presentation. Please make sure to bring your PowerPoint-presentation on a CD-ROM or USB-stick to the media check well in advance, 3 hours prior to the start of your session at the very latest. Do not bring your own laptop for the presentation.
In case your presentation contains video sequences, please make sure to pack them with a standard codec and do not store them in a QuickTime format since this may not be compatible with PowerPoint-presentations.
In order to be able to keep the time schedule, please make sure not to exceed the allotted speaking time.

Information for chairpersons

This conference is multi-tracked with very little time between sessions or to move from one session to another. Please note that it is essential that all chairs make sure the speakers strictly adhere to the allotted speaking time in order to avoid disadvantages for the next sessions and speakers.

Information for poster presenters:

Your poster should not exceed 90 cm in width and 150 cm in height (portrait format!). Mounting material will be provided on site. Please remember your poster number, panels will show these numbers.
All posters will be displayed during the entire congress. Posters should be mounted on Tuesday, 12 September between 2 and 6 p.m. or on Wednesday by 12 noon at the latest. Posters have to be on display during the whole congress and have to be taken down on Saturday, 16 September by the end of the congress. Please note that all posters which have not been taken down by their presenters will be automatically removed.
Posters will be displayed in the foyers adjacent to the meeting rooms.
Poster sessions are held on each day. Presenters are requested to be present at their posters during their assigned session.
Monday, 11 September

SATELLITE SYMPOSIUM
Chronobiology in psychiatry, 10:00-17:30
Psychiatric University Clinics Basel, Switzerland

10:00 Welcome
Fritz Jenny
Peter Meier-Abt
Hedwig Kaiser

Introduction
Franz Müller-Spahn

10:30 Chair: Serge Daan (University of Groningen, NL)

10:40 Circadian clocks: from bunker to real life
Till Roenneberg

11:05 Why we sleep
Alexander Borbély

12:00 Chair: Thomas Wehr (NIMH, USA)

12:10 Light treatment: evolving applications
Michael Terman

12:35 Chronotherapeutics on a psychiatric ward
Francesco Benedetti

14:30 Chair: Josephine Arendt (University of Surrey, UK)

14:40 Chronotherapeutics in sleep medicine, gerontopsychiatry and neurology
Masako Okawa

15:05 Live to the rhythm: circadian function in aging and dementia
Eus van Someren

16:00 Chair: Helena Illnerova (Academy of Sciences of the Czech Republic)

16:10 Chronobiology research in Basel: future directions
Christian Cajochen / Kurt Kräuchi

16:50 Beyond the limits - chronobiology in a technology driven world
Peter Whybrow

17:15 Summing up
Anna Wirz-Justice
Tuesday, 12 September

08:30 - 10:30  
**TEACHING COURSE 1:**  
In vivo neurochemistry and sleep regulation  
T. Porkka Heiskanen (Helsinki, Finland)  
Room Freiburg

**TEACHING COURSE 2:**  
RLS: clinical evaluation and treatment strategies  
C. Trenkwald (Goettingen, Germany)  
Room Grenoble

09:30 - 12:30  
**MEETING OF THE EUROPEAN SOCIETY OF SLEEP TECHNOLOGISTS (ESST)**  
Room Strassburg

09.30  
Welcome

09.30  
Heart failure and sleep disordered breathing  
A. Kugi

10.15  
Heart rhythm disturbances and reanimation  
A. Ryckx

10.45  
Coffee

11.15  
Sleep-disordered breathing and abnormal pulmonary function: interactions  
K. van Kralingen

11.45  
Ventilation with bi-level and volumetric devices  
M. King

11:00 - 13:00  
**TEACHING COURSE 3:**  
Recent perspectives and experimental approaches in the study of sleep - memory relationships  
G. Ficca (Naples, Italy)  
Room Freiburg
TEACHING COURSE 4: Room Grenoble
Testing the autonomic function during sleep
T. Penzel (Marburg, Germany)

13:00 - 16:00 FORUM FOR EUROPEAN WOMEN IN SLEEP RESEARCH Room Strassburg

13:00 Funding from the European Union: What does the Union offer for women researchers? T. Porkka-Heiskanen
14:00 Discussion and short break
14:30 How am I able to manage a career in science with family? T. Paiva
15:00 How to combine career in science with family? Dilemma for a young researcher T. Sletten
15:30 Discussion

13:30 - 15:30 TEACHING COURSE 5: Room Freiburg
Management of sleep disturbances in neurodegenerative disorders
L. Ferini Strambi (Milan, Italy)

TEACHING COURSE 6: Room Grenoble
What makes a good paper? J. Horne (Loughborough, United Kingdom)

14:00 – 16:00 INDUSTRIAL SYMPOSIUM 1 Hall Brüssel
H. LUNDBECK A/S

Sleeping with GABA_A – a look at the relevance of GABA_A in sleep and sleep disorders

Welcome & introduction
D.-J. Dijk
Getting to grips with GABA<sub>A</sub> – an introduction to GABA<sub>A</sub> receptors and the significance of receptor subtypes
K. Wafford

From sleep order to sleep disorder – the role of GABA<sub>A</sub> in sleep mechanisms
J. Lu

Knowing more about GABA<sub>A</sub> – what implications does this have on drug treatments for sleep disorders
S. Wilson

Questions to the faculty and panel discussion

**16:30 – 18:00**  
**INDUSTRIAL SYMPOSIUM 2 – BOEHRINGER INGELHEIM**  
**Hall Brüssel**

**Role of RLS in sleep disorders**  
*Chairs: A.S. Walters (Edison, NJ, USA)*  
*C. Trenkwalder (Goettingen, Germany)*

RLS neuroanatomy and pathophysiology – the rationale for dopaminergic therapy
C. Trenkwalder

Wakefulness, RLS and COMT polymorphism
M. Tafti

Dopamine agonists in RLS in clinical practice
L. Ferrini-Strambi

RLS and ADHD
A.S. Walters

**18:15**  
**MOZART CONCERT & GET TOGETHER**  
**Hall Tirol**
**Wednesday, 13 September**

**08:00 – 09:30**  
**INDUSTRIAL SYMPOSIUM 3:**  
**Hall Innsbruck**  
**UCB SA**  
*Narcolepsy: multi-symptoms therapeutic approach*  

- **Scientific advance in the pathophysiology of narcolepsy**  
  S. Overeem  
- **Pitfalls in the management of narcolepsy**  
  I. Arnulf  
- **Sodium oxybate: a new drug for the treatment of narcolepsy**  
  G. Mayer

**09:30- 10:30**  
**OPENING CEREMONY**  
**Hall Tirol**  
*Welcome addresses*  
- Thomas Pollmächer (ESRS President)  
- Birgit Högl (LOC)  
- Werner Poewe (LOC)  
- Clemens Sorg (Rector Innsbruck Medical University)  

*Awards*  
- Presentation of Sanofi-Aventis awards  
- Presentation of ESRS Alliance Chronosleep travel awards

**Innsbruck Trumpet Consort**  
The official opening of the congress will be accompanied by festive trumpet music by the Innsbruck Trumpet Consort. The consort is directed by Andreas Lackner and is well known for its participation in international festivals for ancient music. The Innsbruck Trumpet Consort is also part of the world-famous ensemble of Nicolaus Harnoncourt.

**10:30 – 11:00**  
**COFFEE BREAK**
11:00 - 13:00  YOUNG SCIENTISTS SYMPOSIUM  

**Hall Tirol**

*Chairs: T. Pollmächer (Ingolstadt, Germany)  
B. Högl (Innsbruck, Austria)*

**11:00**

*Endothelial function in OSA patients and the effect of CPAP (1)*

E. S. Arnardóttir, B. Thorleifsdottir, T. Gislason

**11:30**

*Excessive daytime sleepiness predicts carotid atherosclerosis in sleep apnea (2)*

M. T. Saletu, C. Sauter, G. Kapfhammer, W. Lalouschek, B. Saletu, T. Benesch, J. Zeitlhofer

**12:00**

*The hormonal effects of cumulative partial sleep deprivation in healthy young men (3)*

W. M. van Leeuwen, A. Hirvonen, S. Hyttinen, C. Hublin, M. Sallinen, M. Härmä, T. Porkka-Heiskanen

**12:30**

*Coronary blood flow increases with obstructive sleep apnea but becomes dissociated from myocardial work following lipopolysaccharide infusion (4)*

G. Hamilton, A. M. Walker, P. Solin

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13:00 – 14:00  LUNCH BREAK

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14:00 – 15:00  STATE-OF-THE-ART LECTURE 1  

**Hall Tirol**

*Chair: P. Jennum (Copenhagen, Denmark)*

*Novel strategies in the treatment of sleep apnea*

P. Lévy

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14:00-15:00  STATE-OF-THE-ART LECTURE 2  

**Hall Innsbruck**

*Chair: I. Tobler (Zurich, Switzerland)*

*Interactions of orexins with classical neurotransmitters*

M. Mühlethaler

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*numbers in brackets correspond to numbers in abstract book*
POSTER PRESENTATIONS I

Foyers of Congress
Innsbruck

Sleep breathing disorders -1

P001
Correlation between head and neck physical examination of obstructive sleep apnea syndrom and habituel snorers
H. Firat, S. Kurukahcevioglu, S. Ardic

P002
Relation of sleepiness, neck circumference and body mass index to respiratory disturbance index in Taiwan
E. Chang

P003
Morphostatic correlats and sleep apnoeas
D. Cugy, E. Lavaud, J. Paty

P004
Complex sleep apnea syndrome is associated with neurologic comorbidity
V. I. Kagramanov, T. I. Morgenthaler

P005
The relationship between sleep bruxism and degree of obstructive sleep apnea hypopnea syndrome
Y. Inoko, K. Shimizu, O. Morita, M. Kohno

P006
Quality of life in the patients with sleep related breathing disorders
B. E. Gulbay, T. Acican, O. A. Yildiz, Z. P. Onen, A. Baccioglu, F. Arslan, K. Kose

P007
Can we predict quality of life in sleep apnea patient by polysomnography?
H. Lee, K. Park, J. Kim

P008
Elevated cortisol secretion in patients suffering from both depression and sleep-related breathing disorders
A. Rodenbeck, S. Cohrs, W. Jordan, E. Rüther

P009
Differences in epidemiologic and clinical characteristics between mild and moderate-to-severe obstructive sleep apnea
I. Nikolopoulos, G. Hillas, K. Tzagkaraki, P. Bakakos, A. Rasidakis
P010
Obstructive sleep apnea, asthma and gastro esophageal reflux
Ó. Á. Jóhannesdóttir, T. Gíslason, C. Janson, S. Berg

P011
Serum copper and zinc status in obstructive sleep apnea patients
A. Akyuz, T. Yurdun, Z. Pelin, S. Ozogur, O. Ercan

P012
Association between irregular working time and obstructive sleep apnea among truck drivers
C. R. Moreno, F. A. Carvalho, L. A. Matuzaki, R. Silva, G. Lorenzi Filho

P013
Spatial and temporal memories are affected by hypoxia in OSAS patients
M. Tiberge, A. Daurat, J. Bret Dibat, C. Fureix, J. Foret

P014
Psychiatric disorder and obstructive sleep apnea – preliminary report
A. S. Cabral, V. Domingues, A. M. Ferreira, A. Macedo, M. H. Azevedo

P015
Sleep apnea in Prader-Willi syndrom patients
M. Moran

P016
HLA genotypes in OSAS subjects: a preliminary report
R. Silvestri, G. Vita, R. Condurso, G. Mento, I. Aricò, R. Vita

P017
Idiopathic central sleep apnea due to Cheyne-Stokes breathing pattern
H. Lee, K. Park, J. Kim

P018
Scale-free dynamics of the synchronization between sleep EEG power bands and heart rate variability in normal men and patients with sleep apnea-hypopnea syndrome
M. Dumont, F. Jurysta, J. Lanquart, P. van de Borne, P. Linkowski

Narcolepsy – hypersomnias

P019
Swiss narcolepsy scale: a valid tool for the identification of hypocretin-1 deficient patients with narcolepsy
C. Sturzenegger, U. Kretzschmar, C. Baumann, C. L. Bassetti
P020
Skin temperature influences sleep propensity in narcoleptic patients: possibility for intervention?

P021
Low-resolution brain electromagnetic tomography (LORETA) identifies brain regions linked to psychometric performance under modafinil in narcolepsy
M. T. Saletu, P. Anderer, H. Semlitsch, G. M. Saletu, M. Mandl, J. Zeitlhofer, B. Saletu

P022
Quality of life in narcolepsy patients
S. N. Ervik, M. Abdelnoor, M. S. Heier, M. Ramberg, G. Strand

P023
Reliability of narcolepsy assessment for disability benefit
F. Ingravallo, L. Vignatelli, M. Brini, C. Franceschini, M. Manca, P. Montagna, A. Cicognani, G. Plazzi

P024
No effect of intravenous immunoglobulins on cataplexy in a double-blind n=1 trial
R. Fronczek, J. Verschuuren, G. Lammers

P025
The genetic profile of narcoleptic patients managed at our institute
N. Szternak, Z. Szakács, E. Pozsonyi

P026
Temporal distribution of sleep onset REM periods in narcolepsy
J. Santamaria, C. Falup, A. Iranzo, M. Salamero

P027
CAP-analysis shows microstructural sleep alteration in narcolepsy and REM-sleep behavior disorder
J. Keydel, J. Ricken, S. Noachtar

P028
REM sleep regulation in narcoleptics and normal controls
E. Werth, R. Poryazova, R. Khatami, C. L. Bassetti
P029
Treatment with modafinil may have beneficial effects on planning ability and mood in patients with excessive daytime sleepiness: findings from a pilot study
J. Shneerson, D. Randall, F. Cafferty, I. Smith, S. File

P030
Development of patient cataplexy-training
K. Hardenfels

P031
Diagnostic and therapeutic management of hypersomnia in Poland
A. Wierzbicka, A. Wichniak, E. Waliniowska, E. Szatkowska, K. Czasak, T. Jakubczyk, W. Jernajczyk

P032
Metabolic changes in the right amygdala in narcolepsy? A magnetic resonance spectroscopy study
R. Poryazova, B. Schnepf, E. Werth, D. Meier, U. Dydak, P. Boesiger, C. L. Bassetti

P033
Impaired sustained vigilant attention reflects wake-state instability in narcolepsy-cataplexy
R. Khatami, H. Landolt, M. Adam, J. V. Rétey, D. Schmid, C. L. Bassetti

P034
Narcolepsy-cataplexy in Denmark is also characterized by HLA-DQB1*0602-positivity and low levels of CSF-hypocretin
S. Knudsen, P. Jennum, S. Sheikh, S. Gammeltoft

P035
COMT and SERT genotypes, narcolepsy symptoms, and response to modafinil
C. Pfister, S. Maret, B. Abril, J. Vienne, M. Tafti, Y. Dauvilliers

P036
Intravenous immunoglobulins in a case of early narcolepsy
J. Mathis, R. Buehler, C. Roth, M. Gugger, C. W. Hess

P037
Metabolic parameters in patients with narcolepsy
P. Beitinger, R. Wehrle, S. Fulda, H. Himmerich, T. Pollmächer, T. Wetter

P038
Plasma levels of TNF- and soluble TNF receptors in narcoleptic patients
P. Beitinger, H. Himmerich, S. Fulda, R. Wehrle, J. Linseisen, S. Himmench, T. Wetter, T. Pollmächer
P039
Humour processing in narcoleptic patients assessed by functional MRI  
A. Ponz, S. Schwartz, R. Poryazova, E. Werth, R. Khatami, P. Boesiger, C. Bassetti

P040
The three phases of the cataplectic attack: two more descriptions  
R. Geraldes, C. Bentes, R. Santos, T. Paiva

P041
Magnetic resonance spectroscopy in a patient with Kleine-Levin syndrome  
R. Poryazova, B. Schnepf, E. Werth, P. Valko, P. Boesiger, C. L. Bassetti

P042
Occult sleep disturbances in presumably normal kindergarten children predict learning failure at first grade  
G. Pillar, I. Afek, S. Ravid, S. Surayia, O. Lam

P043
Smiles, communication and behavioral states in newborns  
E. Baroni, M. Cecchini, C. Di Vito, S. Ricci

P044
Sleep and wakefulness among polytechnic high school boys in western Hungary  
B. L. Buda, G. A. Tóth, B. K. Buda, Á. T. Borbás

P045
A randomised controlled trial of behavioural intervention for sleeplessness in children with autism spectrum disorders  
L. Wiggs, G. Stores

P046
Sleep trajectories from 2.5 to 6.0 years of age and associations with developmental milestones  
E. Touchette, D. Petit, R. E. Tremblay, M. Boivin, J. Y. Montplaisir

P047
Longitudinal changes in the sleep habits of Swedish adolescents  
M. Gillberg, H. Pernler, G. Nordlund, H. Norberg, M. Lennernäs
**P048**
Yawning distribution across 24 hour in preterm and near term infants
F. Giganti, L. Paoletti, M. Hayes, G. Bertini, G. Cioni, P. Salzarulo

**P049**
Evaluation of schoolchildren sleep quality
R. Balnyte

**P050**
Bag to sleep – a comparison of two different bedding conditions in infants
W. Sauseng, H. Zotter, S. Thaller, M. Hanzer, K. Pfurtscheller, R. Kerbl

**P051**
Daytime and sleep behaviours in infants under one year old
I. A. Kelmanston

**P052**
A controlled study of cerebral-blood flow velocity (CBFV) in childhood sleep disordered breathing (SDB) before and after adenotonsillectomy
C. M. Hill, A. M. Hogan, N. Onugha, D. L. Harrison, S. Cooper, V. S. Mcgrigor, F. J. Kirkham

**P053**
Parent education leads to the improvement of infant sleep
M. G. Poluektov, O. A. Radchenko, L. I. Yakov, N. B. Troitskaya

**P054**
Dyssomnias and parasomnias in early childhood
D. Petit, E. Touchette, J. Paquet, R. E. Tremblay, M. Boivin, J. Montplaisir

**P055**
Continuous overnight blood pressure measurement in children with sleep disordered breathing

**P056**
Sleep disorders in noncongenital childhood-onset myotonic dystrophy type 1
M. Quera Salva, M. Blumen, A. M. Jacquette, B. Eymard, F. Lofaso, M. Heron

**P057**
Pacifier use for sleeping infants – changes of physiological parameters?
R. Kerbl, W. Sauseng, K. Pfurtscheller, M. Hanzer, H. Zotter
P058
Sleep quality and school performances in adolescents
S. Contardi, F. Pizza, A. Baldi Antognini, S. Nardini, M. Ferlisi, S. Mondini, F. Cirignotta

P059
Sleep disturbances in children hospitalized in pediatric intensive care unit

P060
The nocturnal interplay between postpartum mothers and infants
E. Sørensen, B. Bjorvatn, R. Ursin

Restless legs syndrome - 1

P061
Linkage studies in Austrian families with restless legs syndrome
G. G. Tribl, E. Auff, A. Zimprich

P062
Ropinirole reduces sleep disturbance in patients with restless legs syndrome
T. Dreykluft, N. L. Earl

P063
Ropinirole can provide complete relief of restless legs syndrome (RLS) symptoms as early as week 1: results from controlled trials
D. Garcia-Borreguero, N. L. Earl

P064
Prevalence and management of restless legs syndrome during pregnancy in western Hungarian women
B. L. Buda, P. F. Szatmáry, G. A. Tóth

P065
Differences between sporadic and familial cases of the restless legs syndrome in erythropoetin levels
D. Kemlink, K. Sonka, M. Pretl, H. Benakova, T. Zima, S. Nevsimalova

P066
Vagus nerve stimulation improves restless legs syndrome associated with major depression: a case report
A. Merkl, E. Brakemeier, M. Bajbouj, H. Danker-Hopfe
P067
Automatic scoring of periodic limb movements using a threshold based algorithm
J. Tilmanne, P. Stenuit, M. Kerkhofs, S. Devuyst, T. Dutoit

P068
Experience with pramipexole in the therapy of the restless leg syndrome
Z. Vida, Z. Szakacs

P069
Increased daytime-sleepiness in untreated RLS patients
R. F. Popp, P. Geisler, C. Hirn, J. Zulley, G. Hajak

P070
Histological and histoenzimatic study of the muscle fibers in spinal cord injury rats with limb movement during sleep
A. M. Esteves, M. Mello, C. R. Squarcini, C. P. Lancellotti, A. Comparoni, S. Tufik

P071
Comparative polysomnographic and psychometric studies on the acute effects of gabapentin and ropinirol in the treatment of restless legs syndrome
S. Fatemi, P. Anderer, R. Nikzad, G. Gerger, V. Newesely, U. Tschida, B. Saletu

P072
A single question for the rapid screening of restless legs syndrome in the neurological clinical practice

P073
Restless legs syndrome in patients with high serum ferritin and normal iron levels
R. Peraita-Adrados, L. Duque-Ramirez, A. Vela-Bueno

P074
Impaired associative plasticity in restless legs syndrome
I. Arico’, A. Quartarone, V. Rizzo, R. Condurso, C. Mastroeni, R. Silvestri, P. Girlanda

P075
Restless legs syndrome associated with depression. Three years follow up of 38 patients
I. Bosnjak
P076
Placebo-controlled polysomnographic and psychometric studies on the acute effects of gabapentin in restless legs syndrome and periodic limb movement sleep disorder
B. Saletu, P. Anderer, S. Fatemi, S. Parapatics, H. Putz, S. Culic, G. M. Saletu-Zyhlarz

P077
Do psychopathological symptoms in restless legs syndrome patients depend on treatment outcome? First results from an ARELESS trial with treated and untreated patients
M. Hornyak, C. Grossmann, T. Schlatterer, C. Schulz, H. Benes, R. Kohnen

P078
Restless legs symptoms and mortality
J. Broman, L. Mallon, J. Hetta

P079
Restless legs syndrome in rheumatoid arthritis
V. Gschliesser, B. Lemtis, E. Mur, E. Brandauer, M. Herold, W. Poewe, B. Högl

Biological rhythms - 1

P080
Light exposure patterns in healthy older people living in New England, USA
K. Scheuermaier, A. M. Laffan, J. F. Duffy

P081
Are epileptic seizures really 'circadian'?
A. de Weerd, R. van Leeuwen, B. Grootemarsink

P082
Sleep patterns of swiss college and university students
M. Urner, J. Tornic, K. E. Bloch

P083
Diurnal preference in couples: negotiating sleep timing
V. Vaughan, R. Meadows, S. N. Archer, D. J. Skene, S. Arber

P084
Sleep and circadian adaptation in offshore night shiftworkers
H. C. Thorne, S. Hampton, L. Morgan, D. Skene, J. Arendt
P085  
**Disturbances in melatonin and core body temperature circadian rhythms after minimal invasive surgery**  
I. Gögenur, B. Middleton, V. B. Kristiansen, D. J. Skene, J. Rosenberg

P086  
**Objective performance and subjective alertness were deteriorated inconsistently during constant routine**  

P087  
**Effects of light regime on a time-place learning task**  
J. M. Marimon, H. Almirall, T. Rodrigo, V. D. Chamizo

P088  
**Chronotypes and self-reported daytime concentration**  

P089  
**Time-of-day dependent hypnotic actions of melatonin monitored by radiotelemetry in rats**  
S. P. Fisher, A. Kulla, D. Sugden

P090  
**Subjective and objective sleep during an extended shift work schedule**  
K. Forberg, B. Bjorvatn, S. Waage

P091  
**Circadian rest-activity cycles in patients with probable Alzheimer’s disease over a 5 week treatment period with different neuroleptic medications**  
C. Schnitzler, C. Schröder, C. Cajochen, E. Savaskan, F. Müller-Spahn, A. Wirz-Justice

P092  
**Age-related change in the association between a variable number tandem repeat polymorphism in the (PER3) Gene and preferred timing of sleep and waking activities**  
K. H. Jones, J. Ellis, M. von Schantz, D. J. Skene, D. Dijk, S. N. Archer

P093  
**Lack of diurnal variation in the relationship between EEG delta power and the prior sleep-wake activity**  
Z. Lelkes
P094
Trials of light therapy in a private hospital in Japan
T. Endo

Physiology - Neurophysiology - 1

P095
“Hidden” properties of neuropeptides: hypnogenic activity of tri-peptide complexes
V. M. Kovalzon, G. N. Fesenko, V. N. Kalikhevich, Z. A. Ardemassova, S. V. Koroleva, I. P. Ashmarin

P096
Thalamic and hypothalamic GABAergic projections to the cat brainstem REM sleep-induction area
M. L. Rodrigo-Angulo, S. Heredero, E. Rodríguez-Veiga, F. Reinoso-Suárez

P097
Long-term aspects of REM sleep regulation in the rat
E. Del Sindaco, F. Baracchi, M. Cerri, D. Dentico, M. Luppi, D. Martelli, E. Perez, R. Amici

P098
The probable mechanisms of autonomous spindle oscillations in the thalamus and neocortex on the rat
R. Yasenkov, L. V. Lyssenko, S. Serdjuk, S. Medvedev, A. G. Sukhov

P099
Evolution of slow-wave sleep and palliopallial connectivity in mammals and birds: a hypothesis
N. C. Rattenborg

P100
Hypocretin/orexin innervates mesopontine neurons projecting to the cerebral cortex
E. del Cid-Pellitero, M. Garzón

P101
Site-specific CRH overexpression alters sleep in transgenic mice
M. Kimura, P. Mueller-Preuss, E. Wiesner, A. Lu, J. M. Deussing

P102
Effects of serotonergic activation on sleep-wake behavior of C57BL/6J mice
M. R. Opp, L. Imeri
P103  
Sleep architecture in mammals and birds: updated analyses and the lack of generality of the mammalian paradigm  
J. A. Lesku, T. C. Roth II, S. L. Lima, C. J. Amlaner

P104  
Mapping sleep-wake states with the dynamics of large-scale neural signals in rodents  
D. Gervasoni, R. Goutagny, D. Salvert, P. Fort, P. Luppi

P105  
The role of electrical synapses in the organization of spindle activity on the rat barrel cortex  
E. Kirichenko, P. E. Povilaitite, A. G. Sukhov

P106  
Validation of zebrafish (danio rerio) as an animal model in sleep research: arousal threshold and rest homeostasis  
H. M. Wigren, M. P. Vainikka, T. Porkka-Heiskanen

P107  
Spontaneous yawning does not induce an arousal in humans  
A. G. Guggisberg, J. Mathis, C. W. Hess

P108  
Sleep of dolphins with continuous activity  
Y. Sekiguchi, K. Arai, S. Kohshima

P109  
Cholinergic basal forebrain neurons and homeostatic sleep control  
A. Kalinchuk, D. Stenberg, P. Rosenberg, T. Porkka-Heiskanen

P110  
Asymmetric sleep in rats  

P111  
Water deprivation does not affect dark-pulse triggering of REM sleep  

P112  
Homeostatic sleep regulation in 192 IgG-saporin-treated rats  
L. Kapas, N. H. Mason, V. Kumar
**P113**
The melanin-concentrating hormone receptor 1 plays a key role in the regulation of sleep and the wake-promoting effect of modafinil
P. Fort, D. Gervasoni, B. Lakaye, D. Salvert, T. Grisar, P. Luppi, A. Adamantidis

**P114**
Visually triggered K complexes. Study in New Zealand rabbits.
I. Pigarev, H. Almirall, G. Fedorov, J. Marimon, M. Pigareva

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**16:30 - 18:30**
**SYMPOSIUM 1**
Hall Tirol

**JOINT WFSRMS-ESRS SYMPOSIUM**

**Negotiating daytime sleep: an intercultural comparison of social and cultural aspects of sleep patterns**

**Chairs:** D. Dinges (Philadelphia, USA)  
T. Pollmächer (Ingolstadt, Germany)

16:00
**Normalizing the workplace nap: blurring the boundaries between public and private space and time (5)**
S. Kroll-Smith

17:00
**The politics of daytime sleep: the rapid economic growth in China as sleep thief (6)**
Y. Li

17:30
**Sote hue log. Sleeping people in India (7)**
L. Brunt

18:00
**Getting smart by napping in class: making sense of Japanese high school students’ sleep patterns (8)**
B. Steger

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**16:30 - 18:30**
**SYMPOSIUM 2**
Hall Innsbruck

**What is delayed sleep phase syndrome?**

**Chairs:** M. von Schantz (Guilford, UK)  
H. Tagaya (Tokyo, Japan)

16:00
**Genetic aspects of delayed sleep phase syndrome (DSPS) (9)**
M. von Schantz, S. N. Archer

* numbers in brackets correspond to numbers in abstract book
17:00
**DPSP as an entrainment disorder caused by sleep abnormalities (10)**
H. Tagaya, M. Uchiyama

17:30
**Is delayed sleep phase disorder a disorder of period, phase, both, or neither? (11)**
S. S. Campbell, P. J. Murphy

18:00
**Are DSPS and sleep-onset psychophysiologic insomnia (PI) distinct or overlapping psychological phenotypes? (12)**
C. A. Espie, L. M. Marchetti, K. M. MacMahon, J. Minto, S. Biello

16:30 - 18:30 **SYMPOSIUM 3**
**Hall Brüssel**
**Sleep related breathing disorders in neurodegenerative disorders and stroke**
*Chairs: P. Jennum (Copenhagen, Denmark)*
  *C. Bassetti (Zurich, Switzerland)*

16:30
**Management of sleep disordered breathing in neurological diseases. Organizational and economical aspects (13)***
P. Jennum

17:00
**Sleep-related disordered breathing and stroke (14)**
C. Bassetti

17:30
**Management of stridor and other sleep-related disordered breathing disorders in movement disorders (15)**
J. Santamaria

18:00
**Sleep-related breathing disorders in neuromuscular diseases (16)**
P. Léger

* numbers in brackets correspond to numbers in abstract book
The rotigotine transdermal system
new hope for RLS patients

Chair: C. Trenkwalder (Kassel, Germany)

Introduction
C. Trenkwalder

Pathology of the dopamine system in RLS and animal models
P. C. Baier

Rotgotine transdermal patch (Neupro): pharmacologic profile and benefits in the treatment of Parkinson’s disease
W. Poewe

Clinical performance of rotigotine transdermal patch for treatment of restless legs syndrome
K. Stiasny-Kolster

Summary and discussion
C. Trenkwalder
Thursday, 14 September

07:30 – 08:30  INDUSTRIAL SYMPOSIUM 5  Hall Innsbruck
CEPHALON

Excessive sleepiness – wake up to life!
Excessive Sleepiness – is it really a problem or how prevalent is this distressing symptom?
Chair: W. Poewe (Innsbruck, Austria)

Excessive sleepiness in neurological disorders
Y. Dauvilliers

Excessive sleepiness in psychiatric disorders
C. Hawley

Excessive sleepiness in shift work sleep disorder
G. Hajak

08:30–10:30  ORAL PRESENTATIONS 1  Hall Tirol

Sleep disorders - general
Chairs: E. Sforza (Geneva, Switzerland)
W. Poewe (Innsbruck, Austria)

08:30
Emotional and motor responses during game playing in narcoleptic patients: a functional MRI study (64)*
S. Schwartz, A. Ponz, R. Poryazova, E. Werth, R. Khatami, P. Boesiger, C. Bassetti

08:45
The French narcolepsy observatory: an observational study of narcoleptic patients (65)
Y. Dauvilliers, J. Paquereau, H. Bastuji, X. Drouot, J. Weil, P. Vivo, B. Baconnet, V. Viot-Blanc

09:00
Cognitive performances in idiopathic REM sleep behaviour disorder: potential evidence for extrapyramidal disease (66)

* numbers in brackets correspond to numbers in abstract book
09:15
“Deep sleep” in patients with sporadic Creutzfeldt-Jakob disease? (67)*
H. Landolt, P. Achermann, C. L. Bassetti

09:30
Heart rate increment as a marker of sleep fragmentation in sleep disorders patients (68)
E. Sforza, V. Pichot, K. Cervena, A. Karunajeewa, J. Barthelemy, F. Roche

09:45
Autonomic correlates of arousal from sleep in patients with sleep disorders (69)

10:00
Cyclic alternating pattern (CAP) as pace maker of PLM in nocturnal frontal lobe epilepsy (70)
L. Parrino, V. Rosso, F. De Paolis, G. Milioli, N. Azzi, A. Smerieri, M. Terzano

10:15
Differential diagnosis between paroxysmal arousals and confusional arousals: usefulness of the EEG synchronisation likelihood (71)
M. Zucconi, M. Manconi, D. Lo Coco, F. Rundo, C. J. Stam, L. Ferini-Strambi, R. Ferri

08:30- 10:30 ORAL PRESENTATIONS 2
Hall Innsbruck
Sleep, learning, memory and brain plasticity
Chairs: P. Peigneux (Brussels, Belgium)
P. Anderer (Vienna, Austria)

08:30
Developmental differences in sleep’s role for implicit offline learning: comparing children with adults (72)
S. Fischer, I. Wilhelm, J. Born

08:45
Sleep influences affective preference (73)
P. Peigneux, S. Willems

09:00
Presentation of a learning-associated odour during slow wave sleep enhances declarative memory consolidation (74)
B. H. Rasch, J. Born
09:15
Motor skill learning following acoustic slow wave sleep suppression (75)*
D. Aeschbach, A. Cutler, J. M. Ronda

09:30
REM-like EEG features in wake-sleep transition based on the covert REM hypothesis (76)
M. Sverteczki, E. Mészáros, S. Csóka, A. S. Lázár, R. Bódizs

09:45
Cortical reactivation during sleep spindles in the consolidation of an explicit memory task revealed by low-resolution electromagnetic tomography (77)
G. Gruber, P. Anderer, S. Parapatics, B. Saletu, M. Schabus, W. Klimesch, J. Zeitlhofer

10:00
Intact recognition memory in mice despite spontaneous sleep deprivation by running wheel activity (78)
S. Palchykova, I. Tobler

10:15
Paw preference in the rat is associated with interhemispheric EEG asymmetry during sleep (79)
V. Vyazovskiy, E. Wigger, A. A. Borbély, I. Tobler

08:30-10:30
ORAL PRESENTATIONS 3
Hall Brüssel

Insomnia
Chairs: C. Morin (Québec, Canada)
B. Saletu (Vienna, Austria)

08:30
Validation of a translational model of insomnia in rats and human volunteers (80)
L. M. Paterson, S. J. Wilson, D. J. Nutt, P. H. Hutson, M. Ivarsson

08:45
Is there a night-to-night variability in sleep structure in patients with chronic insomnia? (81)
K. Cervena, A. S. Karunajeewa, E. Sforza

09:00
Sleep-related attentional bias in primary insomnia (82)
K. Spiegelhalder, C. Espie, D. Riemann

* numbers in brackets correspond to numbers in abstract book
09:15
Sleep-related memory consolidation in patients with primary insomnia (83)*

09:30
Cognition in sleep - a cure for nightmares? (84)
B. A. Holzinger, G. Klösch

09:45
Combined cognitive-behavior therapy and medication for treating persistent insomnia (85)
C. M. Morin, A. Vallières, B. Guay, J. Savard, L. Baillargeon, C. Bastien, C. Mérette, J. Grégoire

10:00
A placebo controlled, randomised, double-blind, 4 way cross-over study of 3 doses of EVT 201 on aspects of sleep and morning after performance using a traffic noise model of sleep disturbance (86)
N. Stanley, J. Boyle, I. Hunneyball, J. Kemp, T. Tasker, A. Nicholson

10:15
Placebo-controlled polysomnographic and psychometric studies on the acute effects of pregabalin in insomnia related to neurotic and stress-related disorders and sleep-related movement disorders (87)
G. M. Saletu-Zyhlarz, M. Mandl, G. Gruber, H. Divos, B. Jenuill, B. Saletu

08:30- 10:30
ORAL PRESENTATIONS 4
Hall Freiburg
Infant and adolescent sleep
Chairs: S. Nevsimalova (Prague, Czech Republic) R. Kerbl (Graz, Austria)

08:30
Video-polysomnography in preterm infants with birth weight under 1800 grs (88)
R. Peraita-Adrados, G. Arriola-Pereda, I. Marsinyach-Ros, R. Rodriguez-Fernandez, A. Salcedo-Posadas

08:45
Voiding and arousals in infants (89)

* numbers in brackets correspond to numbers in abstract book
09:00  **SDB in children: preliminary findings from a population sample (90)**

09:15  **REM behavior disorder (RBD) - one of the first symptoms of childhood narcolepsy (91)**
S. Nevsimalova, I. Prihodova, D. Kemlink, L. Lin, E. Mignot

09:30  **Sleep and sleepiness in French adolescent population (92)**
V. Viot-Blanc, A. Muzet, J. Krieger, D. Davenne, P. Lévy, F. Tran, B. Baconnet

09:45  **Contemporary sleep patterns of adolescents in the USA: results of the 2006 national sleep foundation sleep in America poll (93)**
M. A. Carskadon, J. Mindell, C. Drake

10:00  **Effect of melatonin on sleep, behavior and cognition in ADHD and chronic sleep onset insomnia (94)**

10:15  **Signs of sleep instability on boys with attention deficit hyperactivity disorder upon laboratory recordings (95)**
M. Labrosse, M. Gingras, É. Chevrier, P. Lageix, M. Guay, R. Godbout

10:30 – 11:00  **COFFEE BREAK**

11:00 – 13:00  **SYMPOSIUM 4**

**Hall Tirol**

**JOINT WASM-ESRS SYMPOSIUM**

**Epidemiology and social costs of sleep disorders**

*Chairs: M. Partinen (Espoo, Finland)*

* T. Pollmächer (Ingolstadt, Germany)*

11:00  **Narcolepsy: epidemiology, psycho-social and socio-economic aspects (17)**
C. L. Bassetti, G. Mayer

11:30  **Epidemiology and social cost of obstructive sleep apnoea (18)**
L. Ferini-Strambi, A. Braghiroli

12:00  **Epidemiology and social costs of restless legs syndrome (RLS) (19)**
R. Allen, C. Trenkwalder

* numbers in brackets correspond to numbers in abstract book
11:00 - 13:00  SYMPOSIUM 5  Hall Innsbruck

Possible mechanisms contributing to memory consolidation during sleep

Chairs: S. Gais (Liège, Belgium)
M. Rosanova (Milan, Italy)

11:00
Neocortical synaptic changes induced by sleep spindles-related firing patterns (20)*
M. Rosanova

11:30
The contribution of the noradrenergic system to memory consolidation during sleep in humans (21)
S. Gais, U. Wagner, B. Rasch, J. Born

12:00
Slow-wave activity as an electrophysiological marker of synaptic plasticity: human high density EEG recordings (22)

12:30
Locus coeruleus firing during SWS is time locked to slow oscillations: possible contribution of the noradrenergic system to off-line information processing in rats (23)
O. Yeshenko, M. Moelle, L. Marshall, J. Born, S. J. Sara

11:00 - 13:00  SYMPOSIUM 6  Hall Brüssel

Autonomic tone during sleep: from basic physiology to clinical practice

Chairs: P. Lavie (Haifa, Israel)
J. Trinder (Melbourne, Australia)

11:00
Circadian versus sleep influences on cardiovascular activity (24)
J. Trinder

11:30
Cardiovascular consequences of arousal from sleep (25)
M. Morrell

* numbers in brackets correspond to numbers in abstract book
Are vascular responses more reactive in patients with obstructive sleep apnea? (26)
J. Hedner, D. Zou, J. Radlinski, L. Grote, D. Eder

Peripheral arterial tone during sleep (27)
P. Lavie

13:00 – 14:00 LUNCH BREAK

14:00 – 15:00 VIDEO SESSION 1  Hall Brüssel
Narcolepsy
Chair: G.J. Lammers (Leiden, The Netherlands)

Presentation of a typical case
G. J. Lammers

Presentation of a childhood case
S. Overeem

Presentation of typical versus atypical cases
C. Bassetti

Presentation of videos from the audience

14:00 – 15:00 DEBATE SESSION 1  Hall Innsbruck
Arousal and antiarousal in sleep
Chairs: P. Halasz (Budapest, Hungary)
M.G. Terzano (Parma, Italy)

Arousal and antiarousal – what is their tentative function? An introduction
P. Halasz

Response decrease during arousals with KCs and deltas
M. Czisch

Behavioural correlates of arousals
L. Parrino

The automatic component of arousals
E. Sforza

Periodic arousal in sleep
M. Terzano
POSTER PRESENTATIONS 2
Foyers of Congress
Innsbruck

Sleep breathing disorders -2

P115
Apneas-hypopneas alter the link between cardiac autonomic activity and sleep delta power in men.
F. Jurysta, J. Lanquart, P. van de Borne, M. Dumont, P. Linkowski

P116
Transient blood pressure surges in REM sleep are associated with increases in myocardial work and coronary vascular resistance, but an appropriate increase in coronary blood flow
A. M. Walker, G. Hamilton, P. Solin

P117
Cheyne-Stokes respiration related to cyclic alternating pattern (CAP) in atrial fibrillation
L. Parrino, V. Rosso, F. De Paolis, G. Milioli, N. Azzi, A. Smerieri, M. Terzano

P118
Importance of cardiorespiratory coupling in reducing sympathetic excitation during sleep in obstructive sleep apnea patients
N. Montano, A. Bianchi, O. Villantieri, M. O. Mendez, G. Costantino, A. Malliani, S. Aiolfi, V. Patruno

P119
Decreased neutrophil apoptosis - a risk factor for atherosclerosis in sleep apnea patients
L. Lavie, L. Dyugovskaya, A. Polyakov, P. Lavie

P120
Evening and morning levels of S-100b protein in patients suffering from sleep apnea
J. Kelemen, J. Volná, D. Kemlink, M. Pretl, H. Benáková, T. Zima, K. Šonka

P121
Right ventricle function in patients with obstructive sleep apnea syndrome (OSAS)
G. Karamanzanis, I. Nikolopoulos, F. Panoy, G. Hillas, I. Lekakis, H. Kostopoulos, A. Rasidakis, M. Mavrikakis

P122
Cheyne Stokes respiration is absent in children with congestive heart failure
A. Pe’er, A. Lorber, S. Suraiya, A. Malhotra, G. Pillar
Sleep apnea and acute ischemic stroke: evolution of radiological parameters within 3 days after stroke onset
M. M. Siccoli, P. Valko, B. Tettenborn, S. Kollias, C. L. Bassetti

Cardiovascular risk factors clustering in sleep apnea: a factor analysis study
P. Lavie, L. Lavie

Smoking interacts with sleep apnea to increase the levels of systemic inflammatory markers of cardiovascular risk
P. Lavie, L. Lavie

The prevalence of OSAS among ‘non-dipper’ hypertensive patients
Z. Szakacs, A. Adam

Assessment of aortic stiffness which is a new cardiovascular morbidity and mortality predictor in patients with obstructive sleep apnea syndrome and relation with severity of the disease
O. Kokturk, Y. Tavil, T. Ulukavak Çiftçi, A. Kanbay, N. Sen, M. Yalçın

Obstructive sleep apnea as a possible risk factor for small vessel disease in the brain
I. Bernath, Z. Szakacs

The relationship between the presence of nocturnal desaturation and the level of serum IL-8 in patients with sleep apnea

Circulating ICAM-1 level and cardiovascular morbidity in patients with obstructive sleep apnea

Frequency and importance of metabolic syndrome in obstructive sleep apnea syndrome
B. Oktay, E. Akbal, H. Fırat, S. Ardiç
P132
Could obstructive sleep apnea syndrome be a component of metabolic syndrome?
A. Kanbay, T. Ulukavak Ciftci, O. Køkturk

P133
Leptin and neuropeptide Y (NPY) in obstructive sleep apnoea (OSA)
I. Papaioannou, G. Twigg, M. Patterson, A. K. Simonds, M. Ghatei, M. J. Morrell, M. I. Polkey

P134
Pre-to-post-sleep changes in event-related potentials in patients with sleep disorders
E. Sforza, J. Haba-Rubio, K. Cervena, A. Karunajeewa

P135
Electromyographic findings in the upper airway of patients with obstructive sleep apnea and snoring
E. Svanborg, L. Hagander, P. Haraldsson, L. Harder, E. Hultcrantz

P136
Breathing pattern changes after bilateral paramedian thalamic and upper brain stem stroke: a follow-up case study
B. Faludi, J. Lükl

P137
The impact of upper airway infection on respiration during sleep in Prader Willi syndrome
R. van den Bossche, D. Festen, A. Hokken, A. de Weerd

P138
Circadian fluctuations of EEG spectral power during a 24-hour sleep deprivation paradigm in obstructive sleep apnea patients
J. Grenèche, C. Erhardt, J. Krieger, A. Bonnefond, A. Muzet, P. Tassi

Epidemiology – 1

P139
Prevalence of sleep disordered breathing, insomnia and daytime sleepiness in an elderly population - reports from the CoroKind study
P. Johansson, U. Alehagen, U. Dahlstrom, E. Svanborg, A. Brostrom

P140
Sleep disturbances, daytime sleepiness and depressive symptomatology in elderly. The CoroKind study
P. Johansson, A. Brostrom, U. Alehagen, E. Svanborg, U. Dahlstrom
P141
Nocturnal eating in insomniacs revisited after 10 years: 1995-2005
R. Manni, M. Terzaghi, M. Ratti

P142
Profile of insomnia symptoms from 19935 individuals who completed web-based questionnaire and a detailed sleep interview
A. Kumar, W. F. Hofman

P143
Perceived stress and insomnia in late pregnancy - preliminary report

P144
Sleep complaint assessment in refugee population from Abkhazia including children born in Tbilisi
I. Gvilia, M. Eliozishvili, N. Oniani, L. Maisuradze, N. Lortkipanidze, I. Rukhadze, T. Oniani, N. Darchia

P145
Muscle pain and sleep. A population study
R. Ursin, B. Bjorvatn, H. Ursin

P146
Prevalence of home and leisure accident in a population of detected patient suspect of sleep disorders during a healthcare checkup
D. Cugy, C. Scribens, B. Leger, J. Lenain

P147
Do age and shift work experience matter for sleep and health among nurses in a hospital setting?
S. Waage, S. Dale, R. S. Erikstein, B. Bjorvatn

P148
Insomnia among primary care physicians with low and high burnout levels: a stratified random study

P149
Demographic, socioeconomic and health determinants of poor quality sleep in the United Kingdom
M. A. Bote, S. Arber, R. Meadows
Subjective symptomatology in patients with different sleep disorders
B. Bjorvatn, A. van den Hoven, N. Øyane, A. Fetveit, S. Pallesen

Daytime complaints and insomnia in the general population
E. Fortier-Brochu, M. LeBlanc, C. M. Morin

Methods for analysing intra-individual and couple stability and inter-individual and couple variation in dyadic actigraphic data
R. Meadows, S. Arber, S. Venn, J. Hislop

Sleep-wake rhythm development in infants suffering apparent life threatening event (ALTE)
B. Gnidovec Strazisar, D. Neubauer, J. Zidar

Effects of sleep state and postnatal age on the initial ventilatory response to hypoxia in sleeping preterm infants
R. Horne, M. Verbeek, H. Richardson, P. Parslow, S. Scott, R. Harding

Blood pressure variability during sleep in infants: effect sleep state and sleeping position
S. R. Yiallourou, A. M. Walker, R. S. Horne

Exploring the nighttime world of teenagers
S. Venn

Behavioral disturbances and anxiety in children and adolescents with sleep disorders
M. Zarowski, E. Mojs, J. Mlodzikowska-Albrecht, B. Steinborn

Child cognitive performance and behaviour before and after adenotonsillectomy
M. Kohier, D. Kennedy, C. van den Heuvel, J. Martin, K. Lushington
P159
Interhemispheric differences in the intrahemispheric connectivity during neonate’s maturation: analysis from the coherence function of the EEG during sleep
S. Mañas, D. M. De La Cruz, E. Pereda, J. M. Garrido, S. López, N. Estupiñán, J. J. González

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Leg movement periodicity in ADHD children
O. Bruni, R. Ferri, E. Verrillo, S. Miano

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The prevalence of sleep disorders in pre-school children with neurological symptoms. A pilot study
J. Mlodzikowska-Albrecht, M. Zarowski, B. Steinborn

P162
The prevalence of sleep disorders in children and adolescents with headache. A pilot study
M. Zarowski, J. Mlodzikowska-Albrecht, B. Steinborn

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Assessment of sleep behavior disorders in epileptic children on antiepileptic drugs: a comparison of phenytoin/carbamazepine/valproate monotherapy and polytherapy groups
M. gupta, K. Kohli, C. Gupta, Y. Gupta

P164
Spectral analysis of REM sleep EEG in boys with attention deficit hyperactivity disorder
M. Gingras, M. Labrosse, E. Chevrier, P. Lageix, M. Guay, C. Braun, R. Godbout

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Sleep patterns and sleepiness of adolescents attending school in shifts
A. Košćec, B. Radošević-Vidašek, M. Bakotić

P166
Chronic sleep reduction and school performance
A. Meijer

P167
NREM sleep instability is reduced in children with attention deficit hyperactivity disorder
S. Miano, O. Bruni, J. Pagani, R. Ferri, O. Imbornone, M. Evangelisti, M. Villa
P168
Morningness/Eveningness, sleep habits and sleep disturbances in preadolescents and adolescents
C. Violani, O. Bruni, F. Lucidi, P. Russo

P169
Residential status and sleep regularity of university students in Croatia
M. Bakotić, B. Radošević-Vidaček, A. Košćec

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Increased offspring mortality after interruption of the natural sleep pattern of pregnant rats cannot be explained by the maternal or stress factors
Pigareva

Sleep and psychiatry - personality - 1

P171
The relationship between sleeping problems, aggression, anger and impulsivity in a population of juvenile and young offenders
V. Culpin, J. L. Ireland

P172
Perfectionism and sleep disturbance in young males

P173
Sleep variables as a predicting factor of the bipolar illness course pattern
J. Jakitowicz, K. Grabowski, Z. Nowicki, H. Badzio-Jagiello

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Vulnerability to stress-related sleep disturbance - relationship to insomnia and depression
M. Fornal, M. Skalski, W. Szelenberger

P175
REM sleep, a new neurobiological model of schizophrenia?
C. Gottesmann

P176
Sex differences in sleep regulation in depressed adults and healthy controls
R. Armitage, R. Hoffmann
P177
Noise-induced alterations of sleep and performance under the influence of neuroticism and extraversion
A. Marks, B. Griefahn

P178
Modest changes in sleep and open field behaviour in rats exposed to social defeats
J. Gronli, A. Kinn, R. Ursin, C. M. Portas

P179
Correlation between quality of sleep/insomnia and emotional arousal comparing measures of trait and state
C. Baglioni, C. A. Espie

P180
Sleep parameters, memory performance and outcome after interpersonal psychotherapy in patients with major depression

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A laboratory investigation of dream content in schizophrenia patients stabilized with atypical neuroleptics
F. Lusignan, A. Daoust, M. Dubuc, J. Mottard, A. Zadra, R. Godbout

P182
Lack of sleep disturbances in posttraumatic stress disorder: a meta-analysis
K. Borodkin, Y. Dagan

P183
Characterization of sleep EEG in acutely depressed patients using detrended fluctuation analysis
S. Leistedt, M. Dumont, J. Lanquart, M. Dramaix, F. Jurysta, P. Linkowski

P184
Insomnia in hospitalized psychiatric patients
K. Cervena, J. Boulenger, A. Besset

Sleep and human behaviour

P185
Frequent napping in older adults is associated with excessive daytime sleepiness, depression, pain and nocturia
M. V. Vitiello, D. J. Foley, D. L. Blilwise, S. Ancoli-Israel, A. A. Monjan, J. K. Walsh
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The effect of caring and family roles on midlife and older women’s sleep in Italy
E. Bianchera, S. Arber

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Do fatigue model predictions of sleepiness improve if adding factual information of sleep?
G. Kecklund, J. Axelsson, T. Åkerstedt, M. Ingre

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Combined effects of noise and shift work on fatigue as a function of age
M. Saremi, O. Rohmer, A. Burgmeier, A. Bonnefond, A. Muzet, P. Tassi

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The effects of a twenty-minute nocturnal nap on performance and sleepiness during the night
M. Hayashi, N. Kawamoto, T. Hori

P190
Support for an additive model of subjective judgments of sleepiness
O. Mairesse, E. De Valck, J. Hofmans, R. Cluydt, P. Theuns

P191
Acute stress effects on the MSLT versus the MWT
E. De Valck, O. Mairesse, S. Quanten, D. Berckmans, R. Cluydt

P192
Sleepiness and sleep disturbances in an elderly population and their correlation with cognitive impairment
E. Bonanni, G. Tognoni, M. Fabbrini, D. Borghetti, M. Maestri, R. Sposito, I. Ghicopoulos, L. Murri

P193
The influence of the high altitude and hypobaric hypoxia on the subjective quality of sleep
K. Grabowski, R. K. Szymczak, M. Sieminski, E. Sitek, A. Basinski, W. Nyka, J. Jakitowicz

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The impact of the changes of chosen physiological parameters on the subjective quality of sleep at the very high altitude
K. Grabowski, R. K. Szymczak, M. Sieminski, E. Sitek, A. Basinski, W. Nyka, J. Jakitowicz
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Is the subjective sleep and awakening quality affected by the awakening stage?  
D. Moser, G. Kloesch, P. Anderer, J. Zeitlhofer  

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Sleep quality-related self-categorisations of elderly women: a social comparison phenomenon  
B. M. Davis, B. Hood, D. Bruck  

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Music improves sleep quality in medical students  
L. Harmat, J. Takács, R. Bódizs  

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Heritability of daytime sleepiness – an ongoing classical twin study  
A. Wichniak, S. Lietzenmaier, U. Ambrosius, H. Brunner, M. Ising, E. Friess  

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Sleepiness in Portuguese medical students  
T. Paiva, E. Goncalves  

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Comparisons of sleep patterns of athletes that finish and do not finish ecomotion pro 2005  
M. De Mello, H. M. Antunes, M. L. Andersen, W. L. Prado, C. Crispim,  
L. R. Bittencourt, R. S. Silva, S. Tufík  

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Individual differences in sleep length and sleepiness during morning shifts in an irregular shift schedule  
M. Ingre, M. Söderström, G. Kecklund, T. Åkerstedt  

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Perception of driving performance during extended wakefulness  
S. D. Baulk, S. N. Biggs, C. J. van den Heuvel, K. Reid, D. Dawson  

P203  
Coffee and napping improve night-time highway driving: a randomized controlled trial  
P. Sagaspe, J. Taillard, N. Moore, S. Delord, C. Valtat, B. Bioulac, P. Philip  

P204  
Ability to perceive simulated driving performance after sleep restriction and caffeine  
S. Biggs, A. Smith, C. J. van den Heuvel, S. D. Baulk
P205
The role of sleepiness in alcohol ascribed vehicle accidents
F. De Carli, S. Garbarino, C. Campus, M. Lisanti, S. Donadio, C. Manfredi, G. Cuomo, F. Ferrillo

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The act of rating sleepiness affects subjective and objective sleepiness in a monotonous performance situation

P207
Quantitative analysis of blink modifications during somnolence
Y. Sekiguchi, N. Suzuki, K. Yamamoto, S. Koike, Y. Yasuda

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Subjective sleepiness and simulated accident risk avoiding the ecological fallacy
M. Ingre, T. Åkerstedt, G. Kecklund, B. Peters, A. Anund, A. Pickles

P209
Heritability of sleep architecture, sleep continuity and sleep EEG spectral profiles - an ongoing classical twin study
U. Ambrosius, S. Lietzenmaier, A. Wichniak, R. Wehrle, H. Brunner, M. Ising, E. Friess, A. Yassouridis

Pharmacology - animal

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Influence of a GABAb-GABAc receptor antagonist on the sleep-waking cycle in rats
C. Gottesmann, O. Deschaux, W. Froestl

P211
Effects of the 5HT2A antagonist MDL100907 on rat sleep parameters
N. J. Anderson, D. S. Reynolds, T. B. Stensbøl

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Valerian acts at central adenosine receptors
A. Brattstroem, U. Koetter, K. Sichardt, Z. Vissiennon, K. Nieber

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Effects of neuropeptide-Y Y2-receptor agonist PYY3-36 on sleep-wake cycle in rats
K. Honda, O. E. Ukpomwan, Y. Katayama, M. A. Akanmu
P214
A histamine synthesis inhibitor, alpha-fluoromethylhistidine, inhibits orexin-induced wakefulness in rats
K. Honda, Y. Seki, M. Kotani, M. A. Akanmu, K. Hirai, Y. Katayama, K. Yanai

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Dopaminergic role in arousing effects of caffeine and methamphetamine in drosophila
R. Andretic, R. J. Greenspan

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Effects of pilocarpine on the hippocampal-neocortical dialogue during rat sleep
A. Gamundi, S. Tejada, S. Esteban, M. Nicolau, R. V. Rial

P217
Serotonergic modulation of activity-rest rhythm in ring-doves
S. Tejada, A. Gamundi, R. V. Rial, S. Esteban

P218
Effects of i.c.v. pilocarpine injection on the EEG of rats during waking and sleeping states
R. V. Rial, S. Tejada, M. Akaârir, L. Gené, S. Esteban, A. Gamundí

P219
Effects of A1 and A2 agonists of adenosine receptors on the activity-rest rhythm and serotonin synthesis of rats
S. Aparicio, C. Garau, D. Moranta, R. V. Rial, S. Esteban

P220
Tryptophan intake increases the power spectrum of EEG of aged ring doves
C. Garau, S. Aparicio, S. Esteban, R. V. Rial, M. C. Nicolau

P221
Rats differing in the susceptibility to clonic convulsions induced by DMCM differ in the hypnotic effect of diazepam
M. C. Benedito, M. B. Contó, J. G. de Carvalho

P222
R228060/YKP10A: a highly potent non-amphetaminic stimulant
S. Hasan, A. Ahnaou, W. Drinkenburg, M. Tafti, P. Franken

P223
SWS2-consolidating effects of E-6199, compared to zolpidem, zopiclone and THIP in mice
C. Alexandre, A. Guzman, R. Aixendri, M. Hamon, J. Adrien
The effect of valerian extracts on GABA-A receptors
A. Brattstroem, I. Baburin, S. Khom, S. Hering, U. Koetter

Sleep deprivation - 1

EEG spectral power and cognitive performance during sleep inertia: the effect of normal sleep duration and partial sleep deprivation
P. Tassi, A. Bonnefond, O. Engasser, A. Hoeft, R. Eschenlauer, A. Muzet

Sleep, social roles and relationships of health professionals who work at night
E. M. Thompson, T. L. Sletten, D. J. Skene, S. Arber

Effects of age and oral contraceptive use on women’s performance in the psychomotor vigilance task during total sleep deprivation
A. S. Urrila, P. Stenuit, O. Huhdankoski, M. Kerkhofs, T. Porkka-Heiskanen

Recovery of vigilance and multitask performance from cumulative sleep deprivation
M. Sallinen, M. Haavisto, C. Hublin, K. Muller, T. Porkka-Heiskanen, J. Virkkala, M. Härmä

Dynamics of slow wave activity after 5 nights of 4-hour sleep restriction
A. Marsman, S. Banks, D. Avinash, H. P. Van Dongen, D. F. Dinges

Sleep dose-response study of recovery from sustained sleep restriction
S. Banks, H. P. Van Dongen, D. F. Dinges

Total sleep deprivation and partial sleep deprivation in young women
P. Stenuit, M. Kerkhofs

Chronic sleep restriction alters the relationship between subjective daytime sleepiness and hypothalamic-pituitary-adrenal (HPA) axis
H. Kondo, T. Takemura, H. Kanayama, Y. Kaneko, Y. Sagawa, T. Kanbayashi, Y. Hishikawa, T. Shimizu
Sleep deprivation reduces hippocampal expression of the transcription regulatory protein zif-268
P. Meerlo, R. Havekes, R. Hagewoud, I. Kuipers, V. Roman, E. A. Van der Zee

Chronic partial sleep deprivation gradually desensitizes the serotonin-1A receptor system
V. Roman, P. G. Luiten, P. Meerlo

Chronic partial sleep deprivation alters amygdala function and stress reactivity
V. Roman, R. Hagewoud, J. N. Keijser, P. G. Luiten, P. Meerlo

Five days with partial sleep deprivation and the effects on performance, sleepiness and effort
G. Kecklund, J. Axelsson, T. Åkerstedt

Sleep deprivation during the first week of pregnancy differently affects male and female offspring' spatial learning in Morris Water maze
J. M. Marimon, H. Almirall, M. L. Pigareva, T. Rodrigo

Changes in daytime heart rate variability after cumulative partial sleep deprivation
W. M. van Leeuwen, M. Haavisto, J. Virkkala, H. Lindholm, M. Sallinen, T. Porkka-Heiskanen, M. Härmä

Sleep deprivation and suppression of a prepotent response
C. Cavallero, D. Jugovac

The inhibition of basal forebrain neurons during sleep deprivation
A. A. Kostin, A. Kalinchuk, D. Stenberg, T. Porkka-Heiskanen

Age-related changes in homeostatic sleep regulation after multiple naps
M. Münch, V. Knoblauch, K. Blatter, K. Kräuchi, A. Wirz-Justice, C. Cajochen
16:30 – 17:30 STATE-OF-THE-ART LECTURE 3 Hall Tirol
Chair: P. Maquet (Liége, Belgium)

Imaging human sleep
E. Nofzinger (Pittsburgh, USA)

16:30 – 17:30 STATE-OF-THE-ART LECTURE 4 Hall Innsbruck
Chair: J. Horne (Loughborough, UK)

Cognitive functioning in patients with sleep disorders
H. Schulz (Erfurt, Germany)

17:30 – 19:00 ESRS BUSINESS MEETING Hall Tirol

19:00 – 20:30 INDUSTRIAL SYMPOSIUM 6 Hall Brüssel
ALLIANCE PHARMACEUTICAL LTD.

Circadian rhythm sleep disorders and melatonin
Chair: J. Arendt (Guildford, United Kingdom)
A. Wirz-Justice (Basel, Switzerland)

Actions of melatonin on the human circadian system: illustrations from the blind
D.J. Skene

Melatonin treatment in delayed sleep phase syndrome: placebo controlled trials in adults, children and mentally handicapped patients
M. Smits

A long-term randomised clinical trial on combined light and melatonin treatment in dementia
E. van Someren

Circadian entrainment research in the Canadian forces to counter jet lag and shift lag
M. Paul
Friday, 15 September

07:30 – 08:30  INDUSTRIAL SYMPOSIUM 7  Hall Innsbruck
RESPIRONICS
Chair:  P. Escourrou (Clamart, France)

New technologies on sleep disordered breathing

Introduction
P. Escourrou

New technologies for sleep disorder breathing patterns in cardio patients
M. Arzt

Pressure reduction during exhalation (C-FlexTM) in apneic patients: background, physiological measurements, clinical results
P. Pépin

Conclusion
P. Escourrou

08:30- 10:30  SYMPOSIUM 7  Hall Tirol
New findings on the pathogenesis and pathophysiology of REM sleep behaviour disorder (RBD)
Chairs:  C. H. Schenk (Minnesota, USA)
         G. Mayer (Schwalmstadt-Treysa, Germany)

08:30
Abnormal olfactory findings in idiopathic and symptomatic RBD, and current knowledge on synucleinopathies in RBD (28)*
K. Stiasny-Kolster

09:00
Phasic and tonic muscle activity during REM sleep in RBD patients –yet state of the art? (29)
G. Mayer, T. Penzel, K. Kesper, E. Leonhardt

09:30
The role of the limbic system in RBD, and RBD in (non- synucleinopathy) parkinsonism with parkin mutations (30)
A. Iranzo

10:00
RBD in the absence of synucleinopathy: progressive supranuclear palsy and Guillain-Barré syndrome (31)

* numbers in brackets correspond to numbers in abstract book
08:30-10:30 SYMPOSIUM 8 Hall Innsbruck

Detection of sleepiness in the work and traffic environment

Chairs: T. Penzel (Berlin, Germany)
       T. Akerstedt (Stockholm, Sweden)

08:30
Analysis of EEG, heart rate variability and other autonomous signals to detect sleepiness (32)
T. Penzel, H. F. Becker, S. Canisius, E. Bekiaris

09:00
A three process model for the prediction of sleepiness (33)*
T. Akerstedt, C. Portin, J. Axelsson, G. Kecklund

09:30
Nanotechnology based dry sensors for the recording of electrophysiological signals (34)
R. P. Silva

10:00
Wearable sensor systems for monitoring and recording physiological parameters (35)
E. Naujokat, A. Brauers, J. Habetha

08:30-10:30 SYMPOSIUM 9 Hall Brüssel

GABA or acetylcholine? - What regulates sleep in the basal forebrain/hypothalamic area?

Chairs: T. Porkka-Heiskanen (Helsinki, Finland)
       C. Saper (Boston, USA)

08:30
Basal forebrain cholinergic cells in recovery sleep induction (36)
T. Porkka-Heiskanen, A. V. Kalinchuk, K. A. Andrey, D. Stenberg

09:00
Role of the basal forebrain in wakefulness and REM sleep (36)
C. Saper, D. Sherman, J. Lu

09:30
Different activity profiles/different roles of cholinergic and GABAergic basal forebrain neurons across the sleep-waking cycle (38)
B. E. Jones

* numbers in brackets correspond to numbers in abstract book
10:00
Sleep deprivation-induced signals and expressions within cholinergic neurons (39)
R. Basheer

10:30 – 11:00 COFFEE BREAK

11:00 – 13:00 ORAL PRESENTATIONS 5  
Hall Tirol

Sleep breathing disorders: pathophysiology, treatment, cardio-vascular and cognitive consequences

Chairs: D. Pevernagie (Gent, Belgium)
J. Bolitschek (Steyr, Austria)

11:00
Effect of intermittent hypoxia on cognitive function in patients with obstructive sleep apnea (96)*
G. Twigg, I. Papaioannou, A. K. Simonds, M. J. Morrell

11:15
Prevalence of residual excessive sleepiness in obstructive sleep apnea patients treated by continuous positive airway pressure (CPAP) (97)

11:30
Masked hypertension and obstructive sleep apnea syndrome (OSAS) (98)

11:45
Endothelial function of patients with obstructive sleep apnea improves following 3 months on CPAP (99)
S. Itzhaki, G. Pillar, P. Lavie, L. Lavie

12:00
Monocyte expression of heat shock protein 70 in sleep apnea is affected by oxidative stress (100)
L. Lavie, L. Dyugovskaya, P. Lavie

12:15
Motor unit activity in genioglossus during sleep-wake transitions (101)

* numbers in brackets correspond to numbers in abstract book
12:30
**Oropharyngeal vibration and thermal sensitivity in habitual snoring and obstructive sleep apnea (102)**
L. Hagander, R. Harlid, E. Svanborg

12:45
**Incremental risk of obstructive sleep apnea on cardiac surgical outcomes (103)**
R. K. Kaw, J. Golish, S. Ghamande, E. Walker, N. Foldvary

11:00 - 13:00
**ORAL PRESENTATIONS 6**
**Hall Innsbruck**

**Sleep habits and health consequences**
*Chairs: P. Philip (Bordeaux, France)  R. Popovic (Melk, Austria)*

11:00
**Improved sleep continuity predicts reduced fatigue/sleepiness and return to work (104)**
M. Ekstedt, M. Söderström, A. Perski, T. Åkerstedt

11:15
**Screening and diagnosing sleep disorders as part of a corporate health care program (105)**
G. Dorffner, I. Baumgartner, E. Loretz, C. Sauter, G. Klösch, B. Reiter, G. Payer-Neundlinger

11:30
**Frequent nightmares are associated with increased mortality in men (106)**
J. Hetta, L. Mallon, J. Broman

11:45
**Sleep loss as an independent cardiovascular risk factor (107)**
M. Esposito, K. Zouaoui Boudietia, P. Stenuit, M. Dyzma, M. Vanhaeverbeek, M. Kerkhofs

12:00
**Sleep quality, hypnotics and mortality: a population-based 25-year follow-up study (108)**
C. Hublin, J. Kaprio, K. Lillberg, M. Koskenvuo, M. Partinen

12:15
**Interindividual differences in napping and sleep extension in Croatian adolescents attending school in two shifts (109)**
B. Radošević-Vidaček, A. Košćec, M. Bakotić

*numbers in brackets correspond to numbers in abstract book*
12:30
Do we really want more sleep? : A UK study of 10,616 good and poor sleepers (110)
C. Anderson, J. A. Horne

12:45
Sleep quality and polysomnography (111)
T. G. Akerstedt, G. Kecklund, J. Axelsson

11:00 - 13:00
ORAL PRESENTATIONS 7
Hall Brüssel

Human sleep neurophysiology
Chairs: H. Bastuji (Loyn, France)
J. Zeitlhofer (Vienna, Austria)

11:00
Oscillatory events in the human sleep EEG - incidence and properties in baseline and recovery sleep after sleep deprivation (112)*
E. Olbrich, P. Achermann

11:15
TMS-evoked potentials during wakefulness, NREM and REM sleep (113)
M. Massimini, F. Ferrarelli, R. Huber, M. Murphy, M. Peterson, B. Riedner, S. Esser, G. Tononi

11:30
Neural correlates of sleep spindles as revealed by simultaneous electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) (114)

11:45
Active brain processes during human quiescent sleep (115)

12:00
Adenosine A1 receptor occupancy and sleep deprivation: a PET study (116)
E. Geissler, S. M. Ametamey, S. Bodenmann, V. Treyer, J. V. Rétey, P. Achermann, P. A. Schubiger, H. P. Landolt

12:15
Laser evoked responses to painful stimulation during sleep (117)
H. Bastuji, C. Perchet, V. Legrain, L. Garcia-Larrea

* numbers in brackets correspond to numbers in abstract book
12:30
**Influence of bathing at different temperatures on sleep EEG power density spectra in healthy young women (118)**
S. Vollenweider, C. Cajochen, C. Renz, S. Orgül, E. Savaskan, A. Wirz-Justice, K. Kräuchi

12:45
**Arousal events and NREM sleep dynamics (119)**
H. Merica, R. D. Fortune

**11:00 - 13:00**
**ORAL PRESENTATIONS 8**
**Hall Freiburg**

**Biological rhythms and non classical photoreception**
*Chairs: D. J. Dijk (Guilford, United Kingdom)*
  *G. Klösch (Vienna, Austria)*

11:00
**Attenuated circadian rhythms in mice lacking the prokineticin 2 gene (120)**

11:15
**Polymorphism in the clock gene Per3 predicts sleep structure and EEG power spectra (121)**
A. U. Viola, S. N. Archer, J. A. Groeger, D. N. Skene, M. von Schantz, D. J. Dijk

11:30
**Circadian periodicity of the melatonin rhythm and cellular Per2 oscillations in early and late human chronotypes (122)**

11:45
**The effects of short light-dark cycles on sleep in mice (123)**
T. Deboer, G. Ruijgrok, J. H. Meijer

12:00
**Superiority of blue (470 nm) light in eliciting non-image forming brain responses during auditory working memory in humans: a fMRI study (124)**

* numbers in brackets correspond to numbers in abstract book
12:15
Moderate intensity room light can entrain the circadian pacemaker to a non-24 h day (125)
N. Santhi, J. F. Duffy, C. Gronfier, S. W. Lockley, C. A. Czeisler

12:30
Light behaviour & treatment on the n-shift during winter and spring (126)
A. Lowden, L. Teixeira, T. Akerstedt

12:45
Circadian rhythm in degree of sleep inertia following awakening (127)
F. A. Scheer, T. J. Shea, H. L. Evoniuk, M. F. Hilton

13:00 – 14:00 LUNCH BREAK

14:00 – 15:00 CLINICAL CASE PRESENTATIONS 1
Cyclic alternating pattern (CAP)
Chair: M.G. Terzano (Parma, Italy)

General overview

Clinical applications of CAP in autonomic functions: cardiorespiratory coupling
R. Thomas

Clinical applications of CAP in insomnia
M.G. Terzano

CAP and quantification of disturbed sleep
C. Guilleminault

Applications of CAP in movement disorders and epilepsy during sleep
L. Parrino

14:00 – 15:00 DEBATE SESSION 2
Delaying school time in Europe – are we ready?
Chairs: O. G. Jenni (Zurich, Switzerland)
M. Carskadon (East Providence, USA)

Circadian and homeostatic sleep processes across puberty
O. Jenni and M. Carskadon

Consequences of the biological sleep phase delay for adolescents
A. Sadeh

**Adolescent sleep patterns in Europe - current facts and cross-cultural trends**
O. Jenni

**Impact of school schedules on adolescent sleep - the Croatian experience**
A. Koscec

**Discussion together with the audience: delaying school start time in Europe - are we ready?**

**15:00 - 16:30 POSTER PRESENTATIONS 3**

Sleep breathing disorders -3

**P242**
5 years clinical experience with esophagopharyngeal pressure measurement
R. de la Chaux, A. Dreher, C. Klemens, M. Patscheider, O. Reichel, G. Rasp, A. Berghaus

**P243**
Apnea duration index (ADI) and apnea / hypopnea duration index (AHDI) as measurements of obstructive sleep apnea severity
A. Oksenberg, E. Arons, T. Shochat

**P244**
Agreement of apnea-hypopnea indexes based on visual and automatic detection
M. Woertz, P. Anderer, G. Gruber, S. Parapatics, R. Rosipal, B. Saletu, G. Dorffner

**P245**
Transcutaneous CO2 tension and sleep-disordered breathing
E. Rauhala, S. Himanen, A. Saastamoinen, O. Polo

**P246**
Evaluation of a portable recording device (Reggie) with actimeter and pharyngo-oesophageal catheter incorporated
B. Øverland, H. Akre, O. Skatvedt

**P247**
Frequency analysis of snoring sounds: a novel diagnostic tool in patients with sleep disordered breathing
M. Herzog, T. Bremert, A. Schmidt, B. Venohr, W. Hosemann, H. Kaftan
Comparison of embletta portable device versus embla for diagnosing the obstructive sleep apnea
A. Cilli, I. Erogullari, M. Turhan, O. Ozbudak, T. Ozdemir, O. Dinc

Comparison of home snoring measurement using simultaneous embletta and snorometer recordings
R. Royston

Measurement of snoring
A. Dreher, R. de la Chaux, C. Klemens, M. Patscheider, C. Schultheiss, J. Ricken, T. Rader

Sleep EEG microstructure and heart rate in normal sleep and in association with breathing disorders
C. Campus, F. De Carli, M. Lisanti, F. Ferrillo

Value of exercise ECG test in the detection of coronary artery disease in moderate-severe OSA patients
A. Cilli, E. Toprak, F. Bozkus, I. Demir, C. Ogus, T. Ozdemir

The values of systolic mitral annular motion and annular tissue doppler for evaluation left ventricular systolic function in patients with obstructive sleep apnea syndrome
O. Kocturk, Y. Tavil, T. Ulukavak Çiftçi, A. Kanbay, N. Sen, M. Yalçin

Sleepiness and performance in OSAS patients: comparison between MSLT, MWT and driving simulated task (DST)
F. Pizza, S. Contardi, M. Ferli, S. Mondini, F. Cirignotta

Insomnia

Family conflict in childhood: a predictor of later insomnia
A. M. Gregory, A. Caspi, T. E. Moffitt, R. Poulton
P256
The therapy of primary insomnia with citalopram
W. M. Jernajczyk, A. Sobanska, A. Wierzbicka, A. Wichniak, E. Szatkowska

P257
Familial incidence of nonorganic insomnia
M. Skalski, M. Fornal, D. Wołynczyk

P258
Sleep in healthy elderly: correlates of the discrepancy between self-report and recorded sleep
I. Haimov, N. Breznitz, S. Shiloh

P259
Self reported insomnia and mood states in late pregnancy

P260
Task-switching in elderly patients suffering from psychophysiological insomnia - a functional MRI study
R. Schutte, E. Altena, Y. Van Der Werf, E. Sans-Arigita, E. Van Someren

P261
Polysomnographic study of chronic intrinsic insomnia
R. Blois, H. Merica

P262
Insomnia complaints and habitual sleep duration in a young adult sample

P263
Post-nap or first-night effect as model for transient insomnia: a comparison of visual and spectral analysis of sleep EEG
F. Cornette, D. Metzger, F. Calvi-Gries, K. Bouylout, A. Muzet, R. Luthringer, L. Staner

P264
Cognitive behaviour therapy (CBT) for insomnia delivered by nurse specialists decreases sleep onset latency (SOL) and wake-after sleep onset (WASO) in people treated for cancer
P265  
**Insomnia over a 20-year period in Sweden**  
J. Hetta, L. Mallon, J. Broman

P266  
**Usage of hypnotic drugs in elderly patients**  
J. Jakitowicz, M. Sieminski, M. Karwacka, M. Potocka, W. Nyka

P267  
**Occupational and daytime functioning in primary insomnia: a prospective study**  
B. David, K. Morgan

P268  
**Quetiapine in psychophysiological insomnia: a pilot study**  

P269  
**A test of three psychophysiological theories on primary insomnia**  
C. Violani, C. Lombardo, A. Devoto, L. Petrucci, C. Baglioni, P. Russo

P270  
**Cognitive-behavioral therapy is more effective than hypnotic treatment. A randomized controlled trial of elderly chronic primary insomniacs**  
B. Sivertsen, S. Omvik, S. Pallesen, B. Bjorvatn, O. E. Havik, G. Kvale, G. H. Nielsen, I. H. Nordhus

P271  
**ISES: a new bidimensional scale for assessing self efficacy in insomnia**  
C. Violani, F. Lucidi, A. Devoto, L. Mallia, C. Lombardo, P. Russo

P272  
**Neurobiology of insomnia**  
J. Adrien, L. Garma

P273  
**Training for successful aging improves both subjective and objective sleep parameters**  
B. Corman, C. Gauriau, M. Elbaz, D. Leger

P274  
**Brief behavior therapy for sleep-health improvement in the local resident**  
M. Matsushita, H. Tanaka, S. Shirakawa

P275  
**Autonomic function in patients with primary insomnia**  
M. Glos, J. G. Peter, A. Blau, I. Fietze
Predictive response to cognitive behavioral therapy in psychophysiological insomnia
F. Djebli, M. Liyan, Y. Storch, J. Petot, J. Adrien, E. Lainey

The natural history of insomnia in a population-based sample

Time-on task impairment of psychomotor vigilance is affected by mild skin warming and changes with aging and insomnia
R. Raymann, E. J. Van Someren

Individual differences in adult attachment styles and rem sleep high frequency EEG activity: are they interrelated?
R. Bódizs, S. Csóka, A. Lázár, M. Sverteczki, P. Rigó

Dream recall frequency and REM sleep percentage are related to attachment security
S. Csóka, M. Sverteczki, A. Lázár, P. Rigó, R. Bódizs

Spontaneous sleep episodes and mood in depressed patients during 40 hours of sleep deprivation therapy

Depressive patients fail to show sleep-dependent motor memory enhancement
M. Dresler, M. Kluge, P. Schüssler, A. Steiger

Sleep organization correlates with attention and memory in adults with high functioning autism
R. Godbout, É. Limoges, C. Bolduc, L. Mottron

Time series and fractal analyses of sleep spindles: comparisons of
healthy sleepers with generalized anxiety disorder patients
H. R. Prossinger, G. Klösch, P. Anderer, G. Gruber, D. Kunz, J. Dittami, J. Zeitlhofer, G. Dorffner

P285
Wake and REM sleep EEG coherence in adults with high functioning autism
C. Léveillé, C. Bolduc, É. Limoges, C. J. Braun, L. Mottron, R. Godbout

P286
Sleep in adolescent marijuana users during a 28-day abstinence period
M. Cohen-Zion, J. C. Kanady, R. Wong, A. N. Park, T. McQueeney, K. Lisdahl Medina, S. F. Tapert, S. P. Drummond

P287
Atypical region specific NREM sleep dependent thalamocortical resonance in Asperger syndrome
A. Lazar, A. Bíró, M. Gyori, Z. Tárnok, C. Prekop, J. Gádorors, P. Halász, R. Bódizs

P288
NonREM sleep EEG and attention performance in drug-naive patients with schizophrenia and controls
M. Dubuc, G. Forest, J. Poulin, E. Stip, R. Godbout

P289
Long-range temporal correlations in remitted depressed patients: a preliminary report
S. Leistedt, M. Dumont, J. Lanquart, M. Dramaix, F. Jurysta, P. Linkowski

P290
Early morning awakenings, a symptom of depression?
R. J. Schimsheimer, M. V. Duijne, M. Turci

P291
Effect of locus of control on one's sleep and one's health locus of control
N. Matsuura, M. Ishii, M. Hayashi

P292
Sleep onset REM periods in obsessive compulsive disorder
M. Kluge, P. Schüssler, M. Dresler, A. Yassouridis, A. Steiger

P293
Effects of REM - and nonREM deprivation on the correlation between succeeding REM and nonREM episodes in depressed patients
M. Groezinger, J. Röschke
P294
The Mozart/music effect in relaxation therapy: myth or neurophysiological evidence?
G. Bader, C. Blomqvist, L. Sellersjo, L. Hult-Ericson

Instrumentation - methodology

P295
Wake-REM-NREM automatic classification based on a single EEG channel: epoch by epoch comparison with human sleep scoring in patients
C. Berthomier, X. Drouot, M. Herman-Stoica, P. Berthomier, J. Prado, O. Benoit, J. Mattout, M. d’Ortho

P296
An automatic system for the analysis of links among the memory sources of dreams
U. Barcaro, C. Cavallero, C. Navona, O. Salvetti

P297
The use of numerical stochastical modeling for the evaluation of efficiency of cortico-visceral interaction during sleep
E. V. Levichkina, G. O. Fedorov, V. A. Bagaev, I. I. Busygina, I. N. Pigarev

P298
Automatic sleep scoring system using two channel electro-oculography
J. Virkkala, J. Hasan, A. Värrri, S. Himanen, K. Müller

P299
A continuous probabilistic approach to sleep and daytime sleepiness modelling
R. Rosipal, S. Neubauer, P. Anderer, G. Gruber, S. Parapatics, M. Woertz, G. Dorffner

P300
Assessment of sleep quality using wristwatch type optical pulse wave sensor
S. Shirakawa, K. Nishii, T. Kimura, K. Sakai

P301
‘Virtual’ assessment of cognitive workload and attentional capacity in a simulated classroom task
EVALUATION OF A COMBINED ACTIGRAPHY AND HEART RATE VARIABILITY MONITOR FOR DETERMINING SLEEP AND WAKE IN HEALTHY ADULTS
I. Gögenur, H. Munch Petersen, B. Kücükakin, G. Wildschiotz, J. Rosenberg

ASSESSMENT OF STRESS AND BEHAVIOURAL EFFECTS INDUCED BY ‘CaResS’, A NEW DEVICE DESIGNED FOR SLEEP RESTRICTION/DEPRIVATION STUDIES IN MICE
J. Petit, C. Haeberli, A. Singy, J. D. Laughton, T. Steimer, P. J. Magistretti

A MATHEMATICAL MODEL OF SLEEP AS TOOL FOR THE DETECTION OF PARAMETERS CHARACTERIZING SLEEP DISORDERS
S. Donadio, F. Ferrillo, M. Allena, E. Bozano, C. Campus, F. De Carli, M. Lisanti, L. Nobili

PULSED ELECTROMAGNETIC FIELDS: DOSE-DEPENDENT EFFECTS ON SLEEP, THE SLEEP EEG AND COGNITIVE PERFORMANCE
S. J. Regel, G. Tinguely, J. Schuderer, M. Adam, N. Kuster, H. Landolt, P. Achermann

IMPROVED ACTIGRAPHIC SLEEP ESTIMATES BY AUTOMATED LIGHTS OUT AND RISE TIME RECORDING AND LONGER ASSESSMENT DURATION
E. J. van Someren

SET-UP AND VALIDATION OF A SHORT VERSION QUESTIONNAIRE ON SECONDARY SCHOOL PUPILS’ MORNINGNESS AND EVENINGNESS (11-15 YEAR OLD)
C. Richard, J. Taillard, P. Philip, F. Testu

VALIDATION OF THE WATCH-PAT100 AGAINST POLYSOMNOGRAPHY AND CARDIORESPIRATORY RECORDINGS: A MULTI CENTER-STUDY
L. Ferini-Strambi, C. Vicini, R. Manni, A. Braghiroli, F. Fanfulla, A. Fibbi, F. Bertoletti, P. Lavie

WAKING EEG EFFECTS OF LOW-FREQUENCY ELECTROMAGNETIC FIELD EXPOSURE FROM A MOBILE PHONE
C. Hung, P. McEvoy, C. Anderson, J. A. Horne

“TALK MODE” LOW-FREQUENCY COMPONENT OF MOBILE PHONE SIGNALS DELAYS SLEEP ONSET AND HAS AN ALERTING EFFECT ON THE SLEEPY EEG
C. Hung, P. McEvoy, C. Anderson, J. A. Horne
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**Polysomnography from reduced sensor set**  
K. Todros, R. Chenetsky, Y. Amos, T. Zonens, M. MacDonald, D. White

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**On-line behavioral state detection by dimensional reduction of short-term EEG power spectrum for specific and total sleep deprivation in the rat**  
E. A. Vivaldi, A. Bassi, A. Ocampo-Garces

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**Wearable sensor systems for monitoring and recording physiological parameters**  
E. Naujokat, A. Brauers, J. Habetha

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**The effects of an alarm-clock triggered by sleep phase on subjectively experienced awakening quality: a placebo controlled study**  
G. Dorffner, I. Baumgartner, S. Parapatics, E. Loretz, G. Gruber

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**Multimodal simulator assessment of driver drowsiness: an alternative to the MSLT and MWT**  
H. J. Moller, L. Kayumov, E. Bulmash, C. M. Shapiro

Restless legs syndrome - 2

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V. Gschliesser, E. Brandauer, W. Poewe, B. Högl

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**Polysomnography findings in restless legs syndrome: a comparative observational study**  
M. Hornyak, B. Feige, U. Voderholzer, D. Riemann

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**Prevalence of restless legs and periodic limb movements in migraine and non migraine headaches**  
T. Paiva, C. Pereira, J. Pires
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Restless legs syndrome in a population of patients suffering from rheumatoid arthritis

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Restless legs syndrome in a population of premenopausal women
M. Sieminski, M. Karwacka, M. Potocka, P. Przyłucka, A. Trybull, A. Nitka-Sieminska, W. M. Nyka

P321
Restless legs syndrome in women at menopausal age
M. Sieminski, M. Potocka, M. Karwacka, A. Trybull, P. Przyłucka, A. Nitka-Sieminska, W. M. Nyka

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Strictly unilateral restless legs syndrome. a series of three cases
P. Valko, E. Werth, M. Siccoli, C. L. Bassetti

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Validation of a diagnostic telephone interview for the restless legs syndrome

P324
Definition of response, non-response and relapse to drug treatment in restless legs syndrome
H. Benes, C. Meissner, R. Benecke, R. Kohnen

P325
Transdermal lisuride in RLS: new results and insights
H. Benes, on behalf of the Tulir Study Group

P326
A new symptomatic form of restless legs syndrome associated with multiple sclerosis
M. Manconi, M. Fabbrini, E. Bonanni, A. Iudice, L. Murri, M. Filippi, L. Ferini-Strambi

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Augmentation in the dopaminergic treatment of the restless legs syndrome: new insights from the first prospective, double-blind trial on augmentation comparing cabergoline and levodopa
C. Trenkwalder, B. Högl, H. Benes, R. Kohnen
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Intermittent dosing of ropinirole for treatment of mild to moderate restless legs syndrome: tolerability and efficacy
J. Black, L. Scott

P329
Rotigotine patch efficacy and safety in the treatment of moderate to severe restless legs syndrome – Results from a multi-national, long-term, open-label, multi-center trial

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Periodic leg movements and sleep disturbances: the role of actigraphy in the diagnosis of insomnia
T. Crönlein, P. Geisler, J. Zulley, G. Hajak

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PLMS and the kickstrip© in PLMD and RLS
H. L. Hamburger, G. D. Hamburger, B. van Dam, P. Bosma

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Prevalence of the restless legs syndrome in narcoleptic patients – preliminary data
S. Fulda, P. A. Beitinger, R. Wehrle, H. Himmerich, T. Pollmächer, T. C. Wetter

P333
Reduction of sleep disturbance in US and European trials of pramipexole for restless legs syndrome
B. Högl, V. Gschliesser, M. Partinen, W. H. Oertel, J. W. Winkelman

P334
Sustained improvement in quality of life during pramipexole therapy for restless legs syndrome

Biological rhythms - 2

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Long-term combined light and melatonin treatment improve sleep, cognition and mood in demented elderly
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Sleep during long-haul flight: An investigation of Australian crew
T. L. Sletten, D. Darwent, D. Dawson, G. D. Roach

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Age-related difference in circadian rhythm of urine output under constant conditions
J. Hares, V. T. Nguyen, K. P. Wright, Jr., C. A. Czeisler, K. R. Loughlin, J. F. Duffy

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Changes in the activity-rest rhythm and c-fos expression in SCN of ring doves after tryptophan intake with aging
S. Esteban, C. Garau, S. Aparicio, M. C. Nicolau, R. V. Rial

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Long term melatonin treatment for delayed sleep phase syndrome (DSPS) - lack of serious side effects
Y. Dagan, J. T. Doljansky

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Sleep and mental condition during new moon and full moon phases
H. W. Giedke, S. Krebs

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Age-related reduction in daytime sleep propensity
D. Dijk, J. Groeger, S. Deacon, N. Stanley

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Bright light to alleviate shift work: a field study
M. Havel, J. Ricken, T. Kuehnle, A. Guth, M. Merrow, T. Roenneberg

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Rules and mechanisms of light entrainment in neurospora crassa
J. Ricken, M. Merrow, T. Roenneberg

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Disrupted circadian variation of sleep in a bipolar man
D. Boivin, E. Waddington-Lamont, M. Lalinec, S. Beaulieu

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Ambulatory sleep-wake evaluation in blind subjects
R. Geraldes, T. Paiva

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Polysomnographic sleep parameters and 6-sulfatoxymelatonin levels
D. Kunz, R. Mahlberg
P347
The efficacy of hospitalization treatment on CRSD patients
J. Murakami, M. Imai, J. Uchida, M. Okawa

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Daytime distribution patterns of temporal lobe seizure
C. Bentes, M. Couto, R. Peralta, I. Henriques, T. Paiva

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Sleep of aircrew following a 12-hour time zone change
K. A. Robertson, M. B. Spencer, S. P. Foster

Learning, memory, cognition – 1

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Dream pictures, neuroholography and the laws of physics
I. Bókkon

P351
Sleep selectively benefits the consolidation of weak memory traces in a declarative memory task
S. Drosopoulouos, C. Schulze, J. Born

P352
Sleep “renders” information
S. Drosopoulouos, E. Vahlenkamp, C. Ebeling, J. Born

P353
Sleep-spindle activity after visuo-motor learning
M. Tamaki, T. Matsuoka, H. Nittono, T. Hori

P354
ERP correlates of sleep-dependent memory consolidation in the probabilistic serial reaction time (SRT) task
P. Peigneux, M. Schabus, P. Maquet

P355
Hypoglycemia during sleep impairs consolidation of declarative memory in type 1 diabetic and healthy humans
K. Chara, M. Hallschmid, S. M. Schmid, J. Born, B. Schultes
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**Encoding difficulty promotes post-learning changes in spindle activity during napping**
S. Christina, M. Vincenzo, P. Philippe, S. Maja, K. Vera, D. Dominique, W. Anna, C. Christian

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**Sleep organization and memory prospective task**
I. Zilli, I. Artusi, F. Giganti, C. Zampi, P. Salzarulo

P358
**The role of sleep in motor memory consolidation assessed by fMRI**
G. Albouy, V. Sterpenich, A. Darsaud, E. Balteau, P. Luppi, A. Luxen, P. Peigneux, P. Maquet

P359
**Sleep-dependent changes in brain activity subserving human navigation**
G. Rauchs, P. Orban, C. Schmidt, E. Balteau, A. Luxen, P. Maquet, P. Peigneux

P360
**The role of sleep in the consolidation of emotional memories in humans: a fMRI study**

P361
**Effects of one night of post-learning sleep vs. wakefulness on long-lasting memory for emotional pictures**
U. Wagner, J. Born

P362
**Pilot study to investigate the relationship between REM sleep and cognitive procedural task learning**
C. Turner, B. T. Dickson, A. J. Belyavin, B. M. Stone

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**Paradoxical sleep amount modulates neuronal plasticity in adult rat hippocampus**

P364
**Time course of sleep inertia dissipation in semantic priming task**
P. Cicogna, M. J. Esposito, V. Natale, M. Occhionero, M. Fabbri, F. Pasquini, L. Tonetti
Pharmacology - human

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Effects of maca on sleep-onset period and sleep structure
M. Tamaki, N. Sasada, D. Soejima, H. Koda, Y. Kiso, T. Hori

P366
Effects of progesterone on sleep and cognition in healthy postmenopausal women
M. Kluge, P. Schüssler, M. Dresler, A. Yassouridis, K. Held, J. Zihl, A. Steiger

P367
Pituitary adenylate cyclase activating peptide (PACAP) affects homeostatic sleep regulation in healthy young men
A. Steiger, H. Murck, I. A. Antonijevic, R. M. Frieboes

P368
Longitudinal effects of the treatment of primary insomnia with trazodone
A. Wichniak, A. Sobańska, A. Wierzbicka, I. Musińska, K. Czasak, W. Jernajczyk

P369
Increased sleep pressure, as measured by EEG slow wave activity, following daytime administration of ayahuasca, the amazonian hallucinogen
M. J. Barbanoj, J. Riba, S. Clos, S. Giménez, E. Grasa, S. Romero

P370
The effects of low doses of risperidone oral solution on sleep in healthy subjects
A. Yoshimura, M. Matsuo, M. Imai, H. Kanai, M. Sadamatsu, M. Okawa

P371
Comparative double-blind, placebo-controlled sleep studies on the acute effects of quetiapine versus prothipendyl in young and elderly subjects
R. Nikzad, M. Mandl, G. M. Saletu-Zyharlz, E. Loretz, P. Anderer, B. Saletu

P372
Pharmacological strategies to maintain cognitive performance and wakefulness during military operations
M. Beaumont, D. Batéjat, P. Van Beers, O. Coste, C. Piérard

P373
The selective extrasynaptic GABA A agonist, gaboxadol, improves sleep maintenance and enhances slow wave sleep in adult patients with primary insomnia
J. Lundahl, L. Staner, C. Staner, S. Deacon
P374
Differences between spectral profiles during NREM sleep for gaboxadol and zolpidem in the short-term treatment of patients with primary insomnia
J. Lundahl, L. Staner, S. Deacon

P375
Placebo effect of caffeine: the “power of suggestion”
C. Anderson, J. E. Hatchett, J. A. Horne

P376
Effect of the hypolipidaemic agents atorvastatin and pravastatin on nocturnal sleep
C. Turner, B. Morgan, B. M. Stone

P377
Gaboxadol improves traditional hypnotic efficacy measures and enhances slow wave activity in a model of transient insomnia
J. Walsh, J. Lundahl, D. Dijk, S. Deacon

P378
Pharmacokinetic profile of a new modified-release formulation of zolpidem designed to improve sleep continuity
C. Dubruc, E. Weinling, F. André

P379
Sodium oxybate-induced changes in nocturnal slow-wave sleep and delta power correlate with improvements in measures of daytime alertness and sleep continuity in patients with narcolepsy
J. Black, P. Perera, D. Pardi, H. Liang
16:30
**The Effects of chronic sleep loss and sleep extension on selective attention and executive function (128)**
K. P. Wright, D. J. Frey, M. E. Moritz, C. M. Jung, J. L. Nguyen, J. J. Rodgers, A. T. Wertz

16:45
**Consequences of chronic partial sleep deprivation: alterations in serotonin signaling and emotionality (129)**
P. Meerlo, V. Roman

17:00
**Mapping effects of sleep deprivation with combined fMRI/EEG (130)**
R. Wehrle, P. Sämann, H. Harssy, T. C. Wetter, F. Holsboer, M. Czisch, S. P. Drummond

17:15
**Individual differences predict compensatory recruitment with sleep deprivation (131)**
S. P. Drummond, L. Ayalon, M. S. Aloia

17:30
**Differential modulation of frontal and parietal attentional processes by total sleep deprivation: an event-related potentials study (132)**
V. Brazzini-Poisson, R. Godbout, M. E. Lavoie

17:45
**Age-related changes in the dynamics of frontal low-EEG activity during sustained wakefulness (133)**
C. Cajochen, M. Imai, M. Münch, K. Blatter, S. Kobialka, V. Knoblauch, C. Renz, A. Wirz-Justice

18:00
**Growth hormone-releasing hormone and corticotropin-releasing hormone enhance sleep after sleep deprivation (134)**
A. Steiger, P. Schüssler, A. Yassouridis, M. Uhr, M. Kluge, J. Weikel

18:15
**Splenic lymphocyte changes correspond to sleep deprivation and recovery in rats (135)**
C. A. Everson

* numbers in brackets correspond to numbers in abstract book
16:30
Neuropeptide Y promotes wakefulness in rats (136)*
E. Szentirmai, J. M. Krueger

16:45
Skin temperature determines sleep depth (137)
R. Raymann, D. F. Swaab, E. J. Van Someren

17:00
Whole body cooling effects on nap sleep (138)
P. J. Murphy, A. M. Goldberg, S. S. Campbell

17:15
A working week with restricted sleep: effects on self-rated health, circulating cytokines and the response to a mitogen challenge (139)

17:30
Sleep complaints as predictors of weight gain: a 10-year follow-up of Finnish industrial employees (140)
M. I. Härmä, L. Kaila-Kangas, M. Kivimäki, T. Lallukka, S. Sarlio-Lääteenkorva, R. Luukkonen, P. Leino-Arjas

17:45
Impact of short-time sleep-deprivation on hormonal hypoglycaemia counterregulation (141)
M. Hallschmid, S. M. Schmid, K. Chara, N. Bandorf, J. Born, B. Schultes

18:00
Homeostatic and allostatic cardiac control during sleep in spontaneously hypertensive rats (142)
G. Zoccoli, V. Asti, C. Berteotti, V. Ferrari, C. Franzini, P. Lenzi, A. Silvani

18:15
Sleep-dependent control of heart rhythm evidenced by mathematical modeling in spontaneously hypertensive rats (143)
A. Silvani, E. Magosso, P. Lenzi, C. Franzini, G. Zoccoli, M. Ursino

* numbers in brackets correspond to numbers in abstract book
16:30
Genetics of the restless legs syndrome: a family-based association study of loci 2 and 3 in a European population (144)*
D. Kemlink, EU-RLS-GENE-STUDY-GROUP

16:45
Investigating restless legs syndrome by studying leg electromyographic activity in the FMRI scanner (145)
K. Spiegelhalder, B. Feige, D. Paul, D. Riemann, M. Hornyak

17:00
Auditory startle reflex is disinhibited in idiopathic restless legs syndrome (146)
B. Frauscher, W. Löscher, M. Kofler, V. Gschliesser, W. Poewe, B. Högl

17:15
PLMS are associated with a higher rise of blood pressure compared to PLMW in patients with restless legs syndrome (147)
M. Pennestri, J. Y. Montplaisir, M. Richard, S. Rompre, R. Colombo, L. A. Paola

17:30
Heart rate and spectral EEG changes accompanying periodic and non-periodic leg movements during sleep (148)
R. Ferri, M. Zucconi, F. Rundo, K. Spruyt, M. Manconi, L. Ferini-Strambi

17:45
Restless legs syndrome, insomnia and quality of life after renal transplantation (149)
A. Szentkirályi, M. Molnár, A. Keszei, L. Szeifert, Á. Kóczy, A. Lindner, I. Mucsi, M. Novák

18:00
Restless legs and restless legs-like syndrome (150)
C. R. Baumann, I. Marti, U. Kretzschmar, E. Werth, C. L. Bassetti

18:15
Validation of the augmentation severity rating scale (ASRS) (151)
D. Garcia-Borreguero, R. Kohnen, R. P. Allen, on behalf of the European RLS Study Group

* numbers in brackets correspond to numbers in abstract book
16:30 - 18:30  
**ORAL PRESENTATIONS 12** 

**Hall Freiburg**

**Basic sleep mechanisms**

*Chairs: M. Kimura (Munich, Germany)*  
*C. Peyron (Lyon, France)*

16:30  
**Caenorhabditis elegans: a model organism to investigate the genetics of sleep and sleep homeostasis (152)**

I. Tobler, E. Wigger, R. Dürr, A. Hajnal

16:45  
**Validation of zebrafish (danio rerio) as an animal model in sleep research: pharmacological manipulation of the adenosine system (153)**

M. P. Vainikka, H. M. Wigren, T. Porkka-Heiskanen

17:00  
**Short-term homeostasis of REM sleep throughout a 12:12 light dark schedule in the octodon degus (154)**

E. A. Vivaldi, A. Ocampo-Garces, F. Hernandez

17:15  
**Retinoid pathway and cortical synchrony during sleep (155)**

S. Maret, P. Franken, Y. Dauvilliers, N. B. Ghyselinck, P. Chambon, M. Tafti

17:30  
**Neuronal activation in the preoptic area during different levels of sleep drive (156)**

I. Gvilia, D. McGinty, R. Szymusiak

17:45  
**Waking-specific discharge of histaminergic tuberomamillary neurons in the mouse (157)**

K. Takahashi, K. Sakai, J. Lin, Y. Kayama

18:00  
**The Role of acetylcholine in the sleep regulation in drosophila (158)**

R. Andretic, R. J. Greenspan

18:15  
**Early-life blockade of 5-HT1A receptors normalizes sleep and depression-like behavior in adult knock-out mice lacking the serotonin transporter (159)**

C. Alexandre, D. Popa, V. Fabre, M. Hamon, A. Joëlle

*  numbers in brackets correspond to numbers in abstract book

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20:00  
**ESRS PARTY**  
Hotel Grauer Bär
Saturday, 16 September

07:30 – 08:30   INDUSTRIAL SYMPOSIUM 8               Hall Innsbruck
GLAXOSMITHKLINE
Restless legs syndrome and sleep in the long run
Chair: C. Trenkwalder (Kassel, Germany)

RLS – it’s all about sleep
G. Hajak

Long-term treatment of RLS with adartrel
C. Trenkwalder

08:30 - 10:30   SYMPOSIUM 10                    Hall Tirol
Sleep and thermoregulation: from bench to bedside
Chairs: K. Kräuchi (Basel, Switzerland)
        E. J.W. Van Someren (Amsterdam, The Netherlands)

09:00
Sleep, the electroencephalogram, and brain temperature in rodents (40)*
T. Deboer

09:30
Suprachiasmatic nucleus, environmental light, and metabolic state interact in the regulation of body temperature (41)
F. A. Scheer

10:00
Causal relation between skin temperature and sleep propensity (42)
E. J. Van Someren, R. Raymann

10:30 AM
Thermophysiological influences on sleep onset latency and sleep EEG power spectra (43)
K. Kräuchi

* numbers in brackets correspond to numbers in abstract book
08:30 - 10:30 SYMPOSIUM 11  
**Hall Innsbruck**  
**Inter-individual differences in sleep and sleep regulation: states and traits**  
*Chairs: H. van Dongen (Spokane, USA)*  
* M. Tafti (Lausanne, Switzerland)*  

09:00  
**Individual differences in habitual sleep duration and circadian sleep regulation (44)**  
D. Dijk  

09:30  
**State vs. trait individual differences in sleep structure (45)**  
H. P. Van Dongen  

10:00  
**Trait-like individual differences in the sleep EEG: adenosinergic mechanisms? (46)**  
H. Landolt  

10:30 AM  
**Genetic underpinnings of EEG oscillations during sleep in mice (47)**  
M. Tafti, P. Franken  

08:30 - 10:30 SYMPOSIUM 12  
**Hall Brüssel**  
**Comorbidity of epilepsy and sleep disturbance**  
*Chairs: L. Nobili (Milan, Italy)*  
* K. Sonka (Prague, Czech Republik)*  

09:00  
**Nocturnal frontal lobe epilepsy and arousal disorders: chance association or common mechanisms? (48)**  

09:30  
**Relationships between epileptic activity, arousal and sleep disturbances: data from intracerebral EEG recordings in epileptic patients (49)**  

10:00  
**Epilepsy and sleep disordered breathing (50)**  
K. Sonka, M. Jakoubková  

10:30 AM  
**Association of REM behaviour disorder with epileptic seizures (51)**  
R. Manni, M. Terzaghi  

* numbers in brackets correspond to numbers in abstract book*
Sleep breathing disorders - 4

P380
Influence of upper airway obstruction on nasal continuous positive airway pressure
H. Kim, K. Bok, J. Min, S. Chung, H. Dhong, Y. Chung

P381
Comparison of several humidifiers for CPAP-therapy, invasive and non-invasive ventilation under standardized climatic conditions in a climatic chamber
M. Wenzel, J. Kerl, D. Dellweg, M. Klauke, K. Hund-Rinke, D. Köhler

P382
Sexual activity and CPAP-treatment
M. Petersen, S. Berg

P383
Physical intimacy and CPAP-treatment
M. Petersen, S. Berg

P384
Initiating treatment with auto-CPAP in patients with severe obstructive sleep apnea and arterial hypertension: effects on systemic blood pressure and heart rate
Z. Dorkova, R. Tkacova

P385
A comparison of humidified and dry CPAP in first time users
R. Royston, J. North, J. Lewis

P386
AutoCPAP improved compliance in patients who were previously intolerant to fixed pressure CPAP
V. Castronovo, M. Fantini, S. Marelli, M. Zucconi, L. Ferini-Strambi

P387
Cognitive functioning in obstructive sleep apnea (OSA) patients: effect of AutoCPAP versus fixed pressure CPAP
V. Castronovo, S. Marelli, S. Cappa, A. Fossati, M. Fantini, M. Manconi, L. Ferini-Strambi
P388
Effects of modafinil on neurobehavioural functioning during CPAP withdrawal
S. C. Williams, N. L. Rogers, S. Leung, R. R. Grunstein, G. Starmer

P389
Increased adherence to continuous positive airway pressure with a group cognitive behavioural treatment intervention: a randomised trial
D. J. Bartlett, D. L. Richards, K. K. Wong, J. Malouff, R. R. Grunstein

P390
Titration procedures in nasal CPAP: auto-CPAP or prediction formula?
K. B. Hertegonne, G. Van Maele, D. Pevernagie

P391
Three-month nCPAP treatment increases SWS in frontal but not central sleep EEG
V. Eskelinen, S. Himanen

P392
Decreased sleep related sweating in CPAP treated OSA patients
E. S. Arnardóttir, B. Thorleifsdottir, E. Svanborg, T. Gislason

P393
Compliance under aPAP therapy related to elevated nasal airflow resistance
S. Telser, S. Vella, B. Hennig, A. Amann, W. Bauer

P394
Autoset CS treatment helps patients with central breathing disturbances who are not responding to CPAP or BiPAP/VPAP
B. S. Halldórsdóttir, E. Gunnarsdóttir, T. Gislason

P395
Our experience of BIPAP therapy of sleep-related respiratory disorders in Hungary
A. Terray Horváth, Z. Szakacs

P396
Obstructive sleep apnea syndrome and left ventricular diastolic function: effects of nasal continuous positive airway pressure (CPAP)

P397
Non-invasive ventilation improves objective vigilance in obesity hypoventilation syndrome
J. Pepin, N. Chouri-Pontarollo, J. Borel, R. Tamisier, B. Wuyam, P. Levy
P398
A home testing and treatment protocol successfully treats OSA in patients at high risk for sleep apnea. A randomized study with comparison to in lab PSG
J. D. Roehrs, A. Garcia, C. K. Scott

P399
Snoring and obstructive sleep apnea – diagnosis and treatment
J. Banaszewski

P400
One-year treatment with a herbest mandibular advancement splint improves obstructive sleep apnea and endothelial function
S. Itzhaki, H. Dorchin, G. Clark, L. Lavie, P. Lavie, G. Pillar

P401
Functional contribution of a mandibular advancement oral appliance to upper airway patency in obstructive sleep apnoea
S. Tsuiki, C. Ryan, A. A. Lowe, Y. Inoue

P402
Polysomnographic studies on the effects of a mandibular repositioning appliance (IST) on the macro- and microstructure of sleep
A. Saletu, P. Anderer, B. Saletu, S. Hartl, S. Parapatics, M. Matejka

P403
Combined palatal surgery for OSAS: PSG and disease severity outcomes
N. P. Shine, R. H. Lewis

P404
Efficacy and compliance of mandibular advancement device in obstructive sleep apnea syndrome under patient-driven protocol of care
M. Vecchierini, D. Leger, J. Laaban, M. Figueredo, J. Levy, P. Philip

P405
Melatonin therapy for REM sleep behavior disorder with co-existing moderate-to-severe sleep apnea
C. Yun, O. Kwon, Y. Cho

P406
Sleep associated endolaryngeal obstruction – a hitherto unknown cause of failure in surgery of sleep related breathing disorders.
R. Pavelka
Epidemiology - 2

P407
Is Frequent use of hypnotics associated with all-cause mortality?
J. Broman, L. Mallon, J. Hetta

P408
Principal presenting symptoms and final diagnoses in a university sleep center: Results from the Zurich sleep registry
U. F. Kretzschmar, C. R. Baumann, E. Werth, C. Sturzenegger, C. L. Bassetti

P409
The quality of life among the population with insomnia: the results from web-based survey.
K. Hayashida, Y. Inoue, T. Munezawa, H. Itoh, K. Nakayama

P410
Are adolescents chronically sleep-deprived? An investigation of sleep habits of adolescents in the southwest of Germany
B. Loessl, G. Valerius, M. Kopasz, M. Hornyak, D. Riemann, U. Voderholzer

P411
Self reported profile of apnea complaints from 60000 individuals seeking help on a web-site in the Netherlands
W. Hofman, A. Kumar

P412
Trait vs. state determinants of sleep duration – taking another look at the weekend effect
S. Fulda

P413
Incidence of insomnia and sleep apnoea in UK train drivers
B. M. Stone, A. McGuffog, C. Turner, M. B. Spencer, A. Mills

P414
Excessive daytime sleepiness in the French general population
V. Viot-Blanc, A. Muzet, J. Krieger, D. Davenne, P. Lévy, F. Tran, B. Baconnet

P415
Hypnotic consumption in La Ribera health area (Valencia, Spain). Evolution from 2000 to 2005.
F. Puertas, M. Murcia-Soler, J. Sanchez-Perez, M. Serrano-Larraz, J. Casterjon, V. Palop
P416
Compliance and effectiveness of self-paid, voluntary multi-component individualized cognitive behaviour therapy for insomnia offered via internet
A. Kumar, W. F. Hofman

P417
Predictors of primary medical care consultation for sleep disorders in New South Wales, Australia
D. J. Bartlett, N. S. Marshall, A. J. Williams, R. R. Grunstein

P418
Sleep in psychiatric disorders
I. L. Burgos Guerrero

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Sleep habits in Portuguese university students
A. A. Gomes, J. C. Tavares, M. P. Azevedo

Parasomnias - Other sleep disorders

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REM sleep behavior disorder and REM sleep without atonia in tauopathies
J. Gagnon, D. Petit, S. Rompré, J. Montplaisir

P421
Body movements during sleep in very old subjects and their relationship with sleep stages
F. Giganti, S. Scavelli, S. Gori, L. Verticilo, G. Ficca, P. Salzarulo

P422
Cognitive impairment and slowing of waking EEG in RBD patients

P423
A polysomnographic study of suspected REM sleep behaviour disorder in Parkinson’s disease
E. Svanborg, S. Sveinbjörnsdottir, T. Gislason

P424
Precipitating factors in adult somnambulism: impact of sleep deprivation with and without forced arousals
M. Pilon, A. Zadra, N. Gosselin, J. Montplaisir
P425
Status dissociatus in multilacunar encephalopathy with median pontine lesion: a video-polygraphic presentation
R. Condurso, I. Aricò, G. Romanello, G. Gervasi, R. Silvestri

P426
REM sleep behavior disorder as an early marker for a neurodegenerative disease

P427
Status parasomnicus – a new variant of NREM parasomnia
N. Trajanovic, C. M. Shapiro, A. Ong

P428
Serum sex hormone levels in patients with idiopathic REM sleep behavior disorder
A. Iranzo, J. Santamaria, M. Martínez de Osaba

P429
Familial nocturnal eating syndrome

P430
REM behaviour disorder (RBD)
B. Stavros, K. Anna, A. Petros, B. Aggeliki, A. Georgia, S. Konstantinos, V. Eftimia, B. Stavros

P431
REM sleep-related facio-mandibular myoclonus
R. Wehrle, A. Bartels, T. C. Wetter

P432
Chronic adult sleepwalking: clinical features and diagnostic evaluation
K. Anna, B. Stavros, A. Petros, B. Aggeliki, P. Zoi, S. Konstantinos, V. Eftimia, S. Baloyannis

P433
A controlled clinical trial on melatonin in RBD patients
D. Kunz, F. Bes, C. Müller, R. Mahlberg
**P434**

*Interaction between sleep related rhythmic movement disorder (RMD) and generalized anxiety disorder*

M. Hansen, K. Kranda, A. Peter, H. Danker-Hopfe

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**Sleep in neurology**

**P435**

*Seizure frequency and sleep disorders: analysis of 129 cases*

Y. V. Lekomtseva

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**P436**

*Carotid occlusion and paradoxical sleep in rodents*

E. Rutskova, A. Evdokimenko, I. Rusakova, V. Loginov, V. Dorokhov, G. Fesenko, V. Kovalzon

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**P437**

*Chiari malformation and sleepmedical aspects*

H. Kenzian, R. Birnbacher, R. Kerbl

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**P438**

*Nocturnal hypoventilation in myotonic dystrophy: correlation with electrophysiological study of diaphragm*

L. Priano, G. Miscio, E. Milano, P. Fanari, A. Salvadori, A. Mauro

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**P439**

*In-vivo acetylcholine-esterase imaging of brainstem nuclei in sleep disturbance associated with Alzheimer’s disease*

C. Eggers, B. Szelies, K. Wienhard, B. Bauer, H. Schroeder, K. Herholz, W. Heiss

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**P440**

*Strong association of the rest-activity rhythm with well-being in demented elderly women*

S. Carvalho Bos, R. Riemersma-Van Der Lek, J. Waterhouse, E. Van Someren

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**P441**

*Prolonged periods of sleep in nursing home patients are related to the severity of dementia*

A. Fetveit, B. Bjorvatn

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**P442**

*Slow wave sleep in dementing illness*

A. Bonakis, H. Tsekou, T. Paparrigopoulos, S. Papageorgiou, P. Ktonas, D. Vasilopoulos, C. Soldatos
Effects of light therapy on sleep, depression and motor symptoms in Parkinson’s disease
S. Paus, T. Schmitz-Hübsch, T. Klockgether, M. Abele

Effect of intrathecal baclofen on sleep and ventilation
M. quera salva, D. Bensmail, P. Denis, F. Lofaso, B. Bussel

Fatigue and sleepiness in multiple sclerosis
M. Fabbrini, C. Frittelli, C. Pecori, E. Bonanni, A. Iudice, L. Murri

Sleep disturbance in a population of epileptic patients
M. Maestri, M. Baldini, D. Perini, A. Iudice, E. Bonanni, L. Murri

Sleep disorders in Parkinson’s disease and multiple system atrophy
P. Jennum

Absence epilepsy and the hypothalamic sleep-promoting and arousal systems
N. Suntsova, S. Kumar, R. Guzman-Marín, M. Shouse, R. Szymusiak, D. McGinty

Sleep-wake-disturbances after traumatic brain injury
C. R. Baumann, E. Werth, R. Stocker, C. L. Bassetti

Disturbance of REM sleep in spinocerebellar ataxia type 2
B. Frauscher, S. M. Bösch, E. Brandauer, G. K. Wenning, W. Poewe, B. Högl

Dementia with Lewy bodies and periodic sharp wave complexes: a longitudinal sleep study

The usefulness of the night sleep EEG monitoring to diagnose seizure in children and adolescents.
J. Mlodzikowska-Albrecht, M. Zarowski, B. Gurda, B. Steinborn
P453
Fatal familial insomnia – video presentation of an Austrian patient with a very short clinical course
A. Painold, M. D. Feichtinger, R. Schmidt, F. Fazekas, B. Melisch, E. Koerner, E. Ott

P454
HLA and sleep onset REM periods in myotonic dystrophy type 1
Y. Dauvilliers, M. Pages, I. Sirois, B. Abril, C. Pfister, M. Tafti

P455
Prevalence of obstructive sleep apnea syndrome (OSAS) and comorbidities in neurological patients
A. Büttner, H. Bennefeld, K. Rühle, K. Beine

P456
Polysomnography in different types of dementia
U. M. Hemmeter, A. Thum, R. Rocamora, M. Giesler, A. Haag, A. Becker, T. Penzel, J. C. Krieg

P456A
Excessive daytime sleepiness and COMT genotypes in patients with parkinsonism

Sleep and medical disorders

P457
Depressive symptoms in patients with chronic heart failure – effects on insomnia, daytime sleepiness and health-related quality of life
A. Brostrom, P. Johansson, J. Kihl, P. Forslund, U. Dahlstrom, E. Svanborg, B. G. Fridlund

P458
Sleep, obesity and physical inactivity in a local Finnish health survey
K. Kukkonen-Harjula, M. Fogelholm, O. Paronen

P459
Elevated plasma homocysteine in patients with renal failure suffering from restless legs syndrome
S. Cohrs, A. Rodenbeck, K. Gade, S. Blaschke

P460
Naturalistic melatonin patterns, daytime light exposure and psychogenic symptoms in menopausal transition
D. Bruck, R. Bliss
Sepsis-induced alterations in sleep of rats
F. Baracchi, M. R. Opp

Differences in plasma cortisol concentration according to sleep-wake stages in formerly iron deficient anemic (FIDA) children
P. D. Peirano, C. R. Algarin, D. J. Algarin, M. I. Garrido, M. Maliqueo, B. Lozoff

Analysis of sleep-dependent cardiovascular changes to clarify the pathophysiology of a consomic rat model of salt-sensitive hypertension
A. Silvani, V. Asti, C. Berteotti, V. Ferrari, C. Franzini, P. Lenzi, G. Zoccoli

Differences in the sleep electroencephalogram between women with premenstrual dysphoric disorder and healthy women
F. C. Baker, L. DeTar, T. Kahan, I. M. Colrain

Insulinoma presenting as a night paroxysmal movement disorder
L. Dolenc Groselj, D. Butinar

A pet therapy program may improve sleep quality and reduce ‘sundowning’ in elderly women with dementia
V. Bromundt, G. Klösch, J. Dittami

Effects of napping on mood among women with significant premenstrual symptoms
L. Lamarche, J. De Koninck

Nocturnal sleep consolidation is still affected at age 10-year in healthy children who presented iron deficiency anemia in infancy

Alterations in REM sleep architecture in spontaneously hypertensive rats
C. Berteotti, V. Asti, V. Ferrari, C. Franzini, P. Lenzi, G. Zoccoli, A. Silvani

Women with vasospastic syndrome exhibit altered sleep EEG power spectra under baseline and high sleep pressure conditions
K. Kräuchi, S. Vollenweider, C. Cajochen, C. Renz, S. Orgül, A. Wirz-Justice
P471
Phasic increases in arterial pressure during REM sleep: the effect of essential hypertension
C. Berteotti, V. Asti, V. Ferrari, C. Franzini, P. Lenzi, A. Silvani, G. Zoccoli

P472
Sleep and menopause – do postmenopausal women sleep worse than premenopausal women?
N. Kalleinen, P. Polo-Kantola, S. Himanen, P. Alhola, A. Joutsen, A. S. Urrila, O. Polo

P473
Hemochromatosis and sleep disturbance
R. F. Peralta, T. Paiva

P474
Fatigue, sleepiness and driving simulator performance in head-neck trauma patients
A. MacLeod, G. Chaumet, P. Sagaspe, J. Taillard, M. Quera-Salva, J. Mazaux, B. Bioulac, P. Philip

Learning, memory, cognition - 2

P475
Consolidation of a motor sequence learning task increases sleep spindles
A. Morin, J. Doyon, J. Perreault, S. Frenette, M. Parenteau, J. Carrier

P476
Neuronal correlates of sleep-dependent declarative memory consolidation
S. Fischer, A. Ischebeck, F. Koppelstätter, S. Felber, W. W. Fleischhacker, H. Hinterhuber

P477
Investigating the relationships between sleep and memory in Alzheimer’s disease

P478
Influence of the selective serotonin reuptake-inhibitor fluvoxamine on procedural memory consolidation during sleep
B. H. Rasch, J. Pommer, J. Born
P479  
The effect of napping on implicit and explicit memory consolidation  

P480  
A beneficial effect of a post-training nap: countering interference and the evolution of delayed gains in a motor sequence learning task  
M. Korman, J. Tamir, J. Doyon, J. Carrier, Y. Dagan, A. Karni

P481  
Brain activity related to memory retrieval changes after overnight sleep: a study of EEG theta frequency  

P482  
EEG theta power during sleep and memory performance  

P483  
Sleep-dependent memory consolidation in patients with schizophrenia  
T. Krupalija, A. Hofer, M. Edlinger, H. Hinterhuber, W. W. Fleischhacker, S. Fischer

P484  
Motivation-dependent motor memory formation during sleep  
T. Krupalija, J. Born, S. Fischer

P485  
Sleep spindles and memory consolidation  

P486  
Slow wave sleep and recollection in recognition memory  
M. Tiberge, A. Daurat, P. Terrier, J. Foret

P487  
Potentiating learning by potentiating slow oscillations?  
H. Helgadottir, L. Marshall, M. Mölle, J. Born
Differential effects of fast and slow sleep spindles in early and late sleep on the consolidation of an explicit memory task
G. Gruber, P. Anderer, S. Parapatics, B. Saletu, T. Miazhynskaia, M. Schabus, W. Klimesch, J. Zeithofer

Interleukin-1 inhibits firing rate of pharmacologically identified cholinergic neurons of the laterodorsal tegmental nucleus recorded in vitro
D. Brambilla, S. Franciosi, M. R. Opp, L. Imeri

Brain-gut peptides involved in the regulation of sleep and feeding: their actions in the enteric nervous system of the guinea-pig ileum
Y. Katayama, K. Honda

Sleep apnea impairs immune responses to the flu-shot
F. B. Consens, M. R. Opp

Acute and long term adaptation of thyrotropin and prolactin to restricted sleep and recovery
J. Axelsson, M. Ingre, T. Akerstedt, M. Lekander

Effects of sleep length and body mass index on metabolic measures
I. Sagen, N. Øyane, S. Waage, A. Fetveit, S. Pallesen, R. Ursin, B. Bjorvatn

Expression of immune response regulating genes in hypothalamic nuclei in a mouse model of sleeping sickness
M. Nygård, K. Kristensson, M. Bentivoglio

Brain and peripheral NO duality in sleeping sickness: different molecular regulations
A. Donia

Intrahypothalamic administration of ghrelin suppresses sleep in rats
E. Szentirmai, J. M. Krueger
P497
On-line analysis of exhaled breath during night as a probe for biochemical changes in the sleeping body
A. Amann, S. Telser, A. Schmid, H. Hinterhuber

P498
Brain processes supplying the energy for REM sleep occurrence
L. Amandine

P499
CRH-receptor type 1 knockout mice as a tool to explore the role of orexin A in sleep regulation
T. Fenzl, C. Flachskamm, P. Müller-Preuss, C. Romanowski, J. Deussing, M. Kimura

P500
Evidence for mechanism of action of the GABA-A receptor agonist THIP in GABA-A receptor delta subunit knockout mice
R. Winsky-Sommerer, I. Tobler

P501
Differential expression proteomics after sleep deprivation
A. Bjorkum, K. Rosendahl, T. Aarhus Braseth, I. Nygard, I. Gurvin, T. Kristensen, R. Nybo

P502
Orexin-containing neurons in rodent models of sleeping
M. Bentivoglio, M. Palomba, W. Masocha, K. Kristensson

P503
Diurnal fluctuations of histamine and glutathione levels in the primate CSF
T. Kodama, J. M. Zeitzer, Y. Honda, C. L. Buckmaster, D. M. Lyons, E. Mignot, S. Nishino

Physiology - neurophysiology - 2

P504
The dynamics of cognitive processes during sleep onset
W. Hofman, K. Groot, E. van Erp

P505
The effect of sleep state and sleeping position on baroreflex sensitivity in term infants
S. R. Yiallourou, A. M. Walker, R. S. Horne
P506
Macro- and microstructure of sleep: is there a link between cyclic alternating patterns and sleep quality?
D. Moser, G. Kloesch, H. Bauer, J. Zeitlhofer

P507
Information processing during human sleep estimated by the use of event-related potentials
S. Tomita, Y. Saito, O. Mandai, T. Kobayashi

P508
Effects of aging on polysomnographic findings in “good” sleepers
P. Anderer, B. Saletu, G. Gruber, M. Woertz, S. Parapatics, J. Zeitlhofer, H. Danker-Hopfe, G. Dorffner

P509
Scoring of graphoelements in the sleep EEG
P. Geisler, and the Task Force for PSG Scoring

P510
Temporal coupling of parahippocampal ripples and sleep spindles in humans
Z. Clemens, M. Mölle, L. Eröss, P. Barsi, P. Halász, J. Born

P511
Granger analysis of the delta band upper limit
J. Lanquart, M. Dumont, P. Linkowski

P512
Heritability of the sleep EEG fingerprint: a study in twins
L. De Gennaro, G. Curcio, F. Fratello, C. Marzano, F. Moroni, M. Pellicciari, S. Costa, M. Ferrara

P513
Decoupling of thalamic and cortical activities during human paradoxical sleep
H. Bastuji, C. Hermand, M. Magnin

P514
Wavelet detection of sleep spindles
J. Jernajczyk, M. Latka, W. Jernajczyk, B. J. West

P515
Subthalamic nucleus activity during human REM sleep: the PGO-like waves
P516
Individual and time-varying model between sleep and thermoregulation
S. Quanten, E. De Valck, O. Mairesse, R. Cluydts, D. Berckmans

P517
Directional information flows between brain hemispheres during pre-sleep wake and early sleep stages

P518
Previous sleep-wake history invariably determines the level of SWA after sleep deprivation in the light or the dark period in the rat
V. Vyazovskiy, P. Achermann, I. Tobler

P519
Effect of stimulus intervals on late positive potential during the tonic and phasic periods of REM
M. Takahara, H. Nittono, S. Shirakawa, T. Hori

P520
Arousal thresholds to different smoke alarm signals in older sleepers
D. Bruck, I. Thomas

P521
Cardiovascular consequences of arousal from sleep: ageing and gender effects
E. A. Goff, D. M. O’Driscoll, A. K. Simonds, J. Trinder, M. J. Morrell

P522
Cortical activities related to the onset of rapid eye movements during REM sleep
K. Ogawa, H. Nittono, K. Yamazaki, T. Hori

P523
Changes in surface body temperatures during sleep
M. Ulander, D. Lorr, E. Svanborg

P524
The effect of normal ageing on EEG power spectra depends on sleep stage and gender
S. Parapatics, P. Anderer, B. Saletu, G. Gruber, T. Miazhynskaia, M. Woertz, G. Dorffner

P525
Topography of slow cortical oscillation
W. Androsiuk, S. Niemcewicz, W. Szelenberger
P526
Heart rate variability on sleep onset process and alternation of sleep stages
S. Shirakawa, K. Mizuno, M. Kitado, H. Tanaka, Y. Komada, K. Mizuno

P527
Effects of capsaicin on a human sleep

Sleep deprivation - 2

P528
Sleep deprivation impairs attention in young and postmenopausal women: hormone therapy has a minor effect
P. Alhola, A. S. Uurila, M. Kylmälä, M. Karakorpi, O. Huhdankoski, R. Portin, P. Polo-Kantola

P529
Unihemispheric and bihemispheric sleep-deprivation. Effects (studies) in the domestic chick (gallus gallus)
M. G. Gian, D. Bobbo, C. Nelini

P530
Effects of cumulative partial sleep deprivation on cognitive functions
M. Haavisto, J. Virkkala, M. Härmä, C. Hublin, K. Müller, T. Porkka-Heiskanen, M. Sallinen

P531
The influence of A1 receptor antagonist on sleep recovery after sleep deprivation
N. Gass, A. Kalinchuk, T. Stenberg

P532
Excitability of the motor cortex after sleep deprivation: a transcranial magnetic stimulation study

P533
Adenosinergic mechanisms may contribute to age-related changes in sleep-wake regulation
M. Adam, J. V. Rétey, R. Khatami, H. Landolt

P534
Slow eye movements (SEMs) predict EEG power changes and subjective estimates of sleepiness during sleep deprivation only with eyes closed
Adenosinergic mechanisms contribute to individual differences in sleep-deprivation induced changes in psychomotor performance and the regional EEG

Selective SWS/SWA deprivation is associated with increased daytime sleep propensity in young, middle-aged and older men and women
D. Dijk, N. Stanley, J. Groeger, S. Deacon

Recovery from sleep debt: the effect of varying TIB sleep dose on the maintenance of wakefulness test
S. Banks, D. F. Dingess

Sleep deprivation-induced sleep rebounds are attenuated by a CCK-A receptor antagonist in rats
L. Kapas, N. H. Pope, E. Attardo

Sleep deprivation induced an increase in the activity of K+-stimulated P-nitrophenylphosphatase in rat brain regions
M. C. Benedito, J. G. DE Carvalho

Effects of bedpartners on the sleep-wake cycle
G. Klösch, J. Dittami, M. Keckeis, I. Machatschke, J. Zeitlhofer

Impact of acute sleep deprivation on the Epworth sleepiness scale
S. Pirrera, E. De Valck, R. Cluydts

Sleep deprivation alters synaptic plasticity and NMDA receptor function in the mouse hippocampus
C. Kopp, J. R. Nicholson, A. Luthi

Sleep fragmentation reduces neurogenesis in the hippocampus of the adult rat
R. Guzman-Marin, T. Bashir, N. Suntsova, R. Szymusiak, D. McGinty
12:00 – 13:00  LUNCH BREAK

13:00 – 14:00  CLINICAL CASE PRESENTATIONS 2  Hall Tirol

Insomnia
Chair: D. Riemann (Freiburg, Germany)

Insomnia and its clinical presentations - an overview
D. Riemann

Insomnia from a cognitive psychological view
C. Espie

Insomnia and its psychological treatment
C. Morin

Insomnia and its neurological aspects
G. Mayer

13:00 – 14:00  VIDEO SESSION 2  Hall Innsbruck

Boundaries between the clinical manifestations of motor/motor-behavioural NREM and REM parasomnia
Chairs: R. Manni (Pavia, Italy)
I. Eisensehr (Munich, Germany)

Rhythmic movement disorder in NREM and REM sleep
S. Nevsimalova, R. Manni

REM sleep behaviour disorder: differential diagnosis on videotape analysis
A. Iranzo

Stage 2 NREM behaviour disorder and other non-RBD episodes
I. Arnulf

Bidirectional influences between epileptic seizures and NREM parasomnia: video-PSG and S-EEG findings
L. Nobili
**SYMPOSIUM 13**

**Mobile communication and sleep**

*Chairs: H. Danker-Hopfe (Berlin, Germany)  
P. Achermann (Zurich, Switzerland)*

14:00

*Electromagnetic fields resembling fields of mobile phones modify the sleep and waking EEG and regional cerebral blood flow (52)*

P. Achermann

14:30

*Radio frequency electromagnetic fields emitted by mobile phone base stations and sleep disturbances – epidemiological findings (53)*

G. Berg, B. Kowall, J. Breckenkamp

15:00

*Do GSM and/or UMTS electromagnetic fields have an effect on sleep? (54)*

H. Danker-Hopfe, H. Dorn

15:30

*The effects of electromagnetic fields emitted by GSM mobile phones on human sleep (55)*


**SYMPOSIUM 14**

**Genetics of sleep and its disorders**

*Chairs: T. Gislason (Reykjavik, Iceland)  
A. I. Pack (Philadelphia, USA)*

14:00

*Genetics of restless legs syndrome (56)*

J. Winkelmann

14:30

*Using mice to elucidate genes controlling sleep and wakefulness (57)*

M. Tafti, P. Franken

15:00

*Elucidating mechanisms regulating sleep and wake by expression profiling studies (58)*

A. I. Pack, J. Zimmerman, K. Shockley, M. Mackiewicz

15:30

*Susceptibility locus for obstructive sleep apnea on Chr 20 – preliminary results from an ongoing linkage study in Iceland (59)*


* numbers in brackets correspond to numbers in abstract book
14:00-16:00 SYMPOSIUM 15  Hall Brüssel
Augmentation: a specific problem in the long-term treatment of restless legs syndrome
Chairs: W. A. Hening (New York, USA)
I. Arnulf (Paris, France)

14:00
Augmentation during dopaminergic therapy: the perspective from clinical trials (60)
B. Högl

14:30
Augmentation in the treatment of RLS: clinical, neurophysiological, and pharmacological perspectives (61)
R. P. Allen

15:00
Guidelines on augmentation: past, present, and future (62)
D. Garcia-Borreguero

15:30
Treatment of restless legs syndrome: new methods in diagnosis and severity assessment of augmentation (63)
R. Kohnen

16:00-16:30 CLOSING CEREMONY  Hall Tirol
Presentation of Helgi Kristbjarnarson’s awards
Presentation of the ESRS-Weinmann young investigators mobility awards
Introduction to the 19th ESRS congress in Glasgow, UK

16:30-17:00 FAREWELL COCKTAIL
SOCIAL PROGRAMME

Mozart concert and get together party
Tuesday, 12 September, 18:15

Join us for a classical concert with Peter Waldner on the harpsichord:
Wolfgang Amadeus Mozart (1756-1791): Sonatas and Variations

Peter Waldner is Professor at the Music Conservatory of the Tyrol in Innsbruck. He is an internationally well renowned harpsichord and organ player. 2006 being the »Mozart Year« to commemorate Mozart's 250th birthday, this harpsichord concert is dedicated to the famous Austrian composer. The concert is by invitation of the local organisers.

However, if you want in turn to make a donation for »True Friends«, a non-profit support organization in Sri Lanka, to support children who have lost their parents in the Tsunami disaster in 2004, your help will be enormously appreciated. Donation boxes are located close to the booth of the Austrian Sleep Research Association in the registration area.

Following the concert all participants and exhibitors are kindly invited to the get together party in the foyers of the Congress Innsbruck (free of charge).

ESRS Party
Friday, 15 September, 20:00

Come and meet your friends and colleagues for the ESRS party at the hotel Grauer Bär, located only a few minutes walking distance from the congress venue. This party offers you the right atmosphere to enjoy interesting talks, good music and a rich buffet in a relaxed setting. The music by the band “Jukebox” will no doubt inspire you to shake a leg...
Price: € 45.- per person
TOURS AND EXCURSIONS

All tours include the services of a professional, English-speaking guide. As mentioned in the 2nd announcement the tours will take place if attended by at least 20 persons. Unfortunately, there were not enough registrations for all the tours offered and the programme had to be changed as follows: (The meeting point for all tours is at Congress Innsbruck – main entrance).

**Tuesday, 12 September, 2 p.m**
**Innsbruck City Tour**

Our local tour guide first takes you on a walking tour through the charming Old City of Innsbruck, situated next to the river Inn which gave its name to the city. Take a closer look at its numerous historical landmarks, such as the Hofkirche church with its «Black Knights» surrounding the funeral monument of Emperor Maximilian, the Rococo-style Helbling town house, St. Jacob’s Cathedral and, above all, the Little Golden Roof. We then visit the excellent museum of Tyrolean Folk Art which will give you a close insight into the life and culture of our Tyrolean ancestors. The museum features among others traditional furniture, costumes and household utensils.

Price per person: € 25.-
Duration: approx. 2.5 hours

**Wednesday, 13 September, 10 a.m.**
**Guided Hiking Tour on the “Zirbenweg”**

Departure from Innsbruck by coach to the winter and summer sports resort Igls at 5km from Innsbruck. A cable car takes you up to the Patscherkofl mountain (2,000 m above sea level). From up there you enjoy a marvellous view of the Inn valley below and our guide will take you on a hiking tour through
the most beautiful stone pine forest in the Alps to the “Tulfeiner Alm” mountain hut, where you will be offered a typical Tyrolean schnapps and snack. Walking time is approx. 2.5 hours (at almost no elevation difference). The hike is suitable for children from the age of 8 and for adults of any age. Equipment: hiking shoes or sturdy shoes, sweater, rain coat, sun glasses

Price per person: € 55.-
Duration: whole day

Thursday, 14 September, 08.30 a.m.
Swarovski Crystal Worlds and the Medieval City of Hall

A bus takes us through a number of typical Tyrolean villages to Wattens, where the Swarovski Crystal Worlds opened their doors to the public some 10 years ago. Through the huge water-spouting head of a botanic giant the visitor enters the mostly subterranean, unique magic World of Crystal. »This place is like a fairy tale come true. People suddenly experience what they previously knew only in their dreams«, says Viennese multimedia artist André Heller, creator of the Swarovski Crystal Worlds.

You have to experience yourself what is hard to describe: a view of the surreal landscape of a glittering galaxy, the inside of a gigantic crystal dome with changing patterns of light and sound, bizarre scenarios - a world of magic. You will have time to look for a souvenir in the crystal shop or enjoy a cup of coffee and a delicious Austrian cake. After a short bus ride we reach the city of Hall with its Mint Tower.

The first records of Hasegg Castle and its famous Mint Tower (»Münzturm«) date back to 1306. Its original purpose was to protect the nearby salt-storage houses. When Archduke Ferdinand II had the old mint transferred from the Castle of Sparberegg to Hasegg in 1567, Hall experienced a decisive upswing. The minting of silver-talers in Hall became world famous. Nowadays, you can still mint your own coin!

Price per person: € 45.- incl. bus, admission to Swarovski Crystal Worlds, Castle of Hasegg, minting of a coin
Duration: approx. 4.5 hours
Friday, 15 September, 10:00 a.m.
Adventure tour – White-water rafting

This tour had to be cancelled.

Saturday, 16 September, 08:00 a.m.
Glacier skiing (for advanced skiers only)

The olympic ski world of Innsbruck and its surroundings not only offer winter guests a tempting choice of skiing and snowboarding facilities in different areas. The natural glacier in the Stubai valley and its ski resorts ensure that winter sports fans will have a truly enjoyable day of winter sports in September - great snow conditions are guaranteed! ...and don’t forget to reserve some time for a sun-bath and après ski.

Price per person:
including lift ticket, ski-, boots-, sticks-rental, shuttle-bus, tour guide, € 95,-
participants bringing their own equipment (without ski-, boots-, sticks-rental) € 69,-
Duration: whole day
LIST OF EXHIBITORS AND SPONSORS

The board of the ESRS and the Local Organising Committee wish to acknowledge the generous financial support of the commercial institutions listed below:

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LIST OF EXHIBITING NON PROFIT ORGANISATIONS:

**Austrian Sleep Research Association ASRA**
Österr. Gesellschaft für Schlafmedizin und Schlafforschung ÖGSM
Anichstraße 35
6020 Innsbruck, Austria
www.schlafmedizin.at
sekretariat@schlafmedizin.at

**ESRS European Sleep Research Society**
Universitätsstraße 84
93053 Regensburg, Germany
www.esrs.org

**ESRS 2008 – Congress Secretariat**
50 Speirs Wharf, Port Dundas
Glasgow G4 9TH, Scotland, United Kingdom
www.esrs2008.com
info@esrs2008.com

**WASM World Association of Sleep Medicine**
Klinikstraße 16
34128 Kassel, Germany
www.wasm.cc
WASMsecretary@gmx.de

**worldsleep 07: 5th World Sleep Congress of the WFSRSM**
PO Box 3270
Sydney, 2001, NSW, Australia
www.worldsleep07.com
info@worldsleep07.com
1 - Congress Innsbruck
2 - Hotel Grauer Bär - ESRS Party
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The Rotigotine Transdermal Patch
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Wednesday, September 13, 18:45 – 19:45, Venue: Saal Innsbruck

A snack will be provided in a mini cool bag.

Visit our Exhibition Booth No. D15