

22nd Congress of the

European Sleep Research Society

Tallinn, Estonia | 16 – 20 September 2014



Final Programme

Tuesday, 16 September 2014

09.00 – 12.30 Teaching Course

Lecture Hall B

Update on sleep medicine (Part 1)

*Chairs: Z. Dogas (Split, HR)
T. Penzel (Berlin, DE)*

- 09.00 1 **Diagnostic methods – portable**
Z. Dogas (Split, HR)
- 09.30 2 **Diagnostic methods – polysomnography**
T. Penzel (Berlin, DE)
- 10.00 **Coffee Break**
- 10.30 3 **Circadian rhythm sleep disorders and treatment**
D. Skene (Guildford, GB)
- 11.30 4 **Management of sleep medicine**
*T. Penzel (Berlin, DE)
Z. Dogas (Split, HR)*
-

09.00 – 12.30 Teaching Course

Lecture Hall D

Pharmacology of the sleep-wake cycle and drug development

*Chairs: R. Winsky-Sommerer (Guildford, GB)
P.-H. Luppi (Lyon, FR)*

- 09.00 5 **Neurochemistry and functional neuroanatomy of sleep**
P.-H. Luppi (Lyon, FR)
- 10.00 **Coffee Break**
- 10.30 6 **Pharmacology of sleep and wake promotion**
R. Winsky-Sommerer (Guildford, GB)
- 11.30 7 **Industry perspectives and drug development**
K. Wafford (Windlesham, GB)
-

Tuesday, 16 September 2014

09.00 – 12.30 Teaching Course Lecture Hall E

CBT-I across the life span

Chairs: C. Espie (Oxford, GB)
K. Spiegelhalder (Freiburg, DE)

- 09.00 **8 CBT-I in children and adolescents**
A. Schlarb (Bielefeld, DE)
- 10.00 **Coffee Break**
- 10.30 **9 CBT-I in adult**
C. Espie (Oxford, GB)
- 11.30 **10 CBT-I in later life and chronic disease**
K. Morgan (Loughborough, GB)
-

08.45 – 15.30 ESST Meeting Lecture Hall F

- 08.45 **11a Welcome**
M. Elbaz (Paris, FR)
- 09.00 **11b Sleep and wake regulation; metabolism & nutrition**
H. Steinebach (NL)
I. Warnaar (NL)
- 09.30 **11c Sound and vision: their importance in P(S)G**
M. Verspaandonk (NL)
- 10.00 **Coffee break**
- 10.30 **11d AASM rules...they've been updated...again!**
E. Hill (Edinburgh, GB)
- 11.00 **11e Paediatric Sleep Study Scoring**
P. Murphy (SE)
- 11.30 **11f Cheyne Stokes breathing and ASV**
C. Navin (GB)
- 12.00 **11g Sleep medicine in Estonia by nurse practitioner**
T. Siilak (EE)
R. Vaiksaar (EE)
- 12.30 **Lunch Break**
- 13.30 **11h Circadian rhythm sleep disorders**
V. van Kasteel (NL)
- 14.00 **11i Actigraphy: clinical usage**
S. Briscoe (GB)
- 14.30 **11j How to measure snoring? A comparison of the three accepted AASM**
E. Sif Arnardottir (Reykjavik, IS)
- 15.00 **11k The ESRS Somnologist Technologist Exam**
S. de Lacy (Orihuela Costa, ES)
- 15.30 **Close of meeting**
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Tuesday, 16 September 2014

13.30 – 17.00 **Teaching Course** Lecture Hall B

Update on sleep medicine (Part 2)

Chairs: *Z. Dogas (Split, HR)*
 T. Penzel (Berlin, DE)

- 13.30 12 **Sleep disordered breathing**
 D. Pevernagie (Gent, BE)
- 14.30 13 **Insomnia**
 C. Espie (Oxford, GB)
- 15.30 **Coffee Break**
- 16.00 14 **Restless legs syndrome and periodic legs movement syndrome**
 D. Garcia-Borreguero (Madrid, ES)
-

13.30 – 15.30 **Symposium Local Committee I** Lecture Hall C

Sleep and neuropsychiatric disorders

Chairs: *T. Hion (Tartu, EE)*
 P. Jennum (Glostrup, DK)

- 13.30 15 **History of the Estonian Sleep Medicine Association**
 M. Veldi (Tartu, EE)
- 13.50 16 **Social burden and management of sleep disorders**
 P. Jennum (Copenhagen, DK)
- 14.10 17 **Psychiatric risk genotypes and sleep in a prospective population-representative study**
 J. Harro (Tartu, EE)
- 14.30 18 **Screening sleep disorders by mattress movement sensor**
 S.-L. Himanen (Tampere, FI)
- 14.50 19 **Effects of insomnia CBT-oriented group therapy in adults in Estonia**
 T. Hion (Tartu, EE)
- 15.10 20 **Treatment of DSPD with light and melatonin**
 B. Bjorvatn (Bergen, NO)
-

13.30 – 17.00 **Teaching Course** Lecture Hall D

Circadian and homeostatic regulation of sleep

Chairs: *D.-J. Dijk (Guildford, GB)*
 T. Porkka-Heiskanen (Helsinki, FI)

- 13.30 21 **Circadian and homeostatic regulation of sleep**
 D.-J. Dijk (Guildford, GB)
- 14.30 22 **The biochemistry of sleep homeostasis**
 T. Porkka-Heiskanen (Helsinki, FI)
- 15.30 **Coffee Break**
- 16.00 23 **Genes involved in circadian rhythmicity and sleep homeostasis**
 T. Paunio (Helsinki, FI)
-

Tuesday, 16 September 2014

13.30 – 17.00 **Teaching Course** Lecture Hall E

Sleep disordered breathing: spectrum of current therapies

Chair: L. Nobili (Milan, IT)

- 13.30 **24** **Ambulatory protocols of CPAP treatment in obstructive sleep apnea syndrome**
L. Grote (Gothenburg, SE)
- 14.00 **25** **Mandibular advancing devices in adult OSA patients: indications and results of treatment**
J. Verbraecken (Antwerp, BE)
- 14.30 **26** **Treatment of sleep disordered breathing in chronic heart failure**
L. Grote (Gothenburg, SE)
- 15.00 **27** **Therapeutic strategies for the obesity hypoventilation syndrome**
J. Verbraecken (Antwerp, BE)
- 15.30 **Coffee Break**
- 16.00 **28** **Surgical treatment of obstructive sleep apnea syndrome: new approaches and techniques**
C. Vicini (Parma, IT)
-

16.00 – 18.00 **Symposium Local Committee II** Lecture Hall C

Sleep disordered breathing: dilemmas and cardiac function

*Chairs: E. Sõõru (Tallinn, EE)
E. Lindberg (Uppsala, SE)*

- 16.00 **29** **Snoring and adverse health effects: a general population study in Iceland**
E.S. Arnardottir, B. Arnason, K.A. Olafsdottir, S. Hoskuldsson, B. Benediktsdottir, T. Gislason (Reykjavik, IS)
- 16.20 **30** **Management of obstructive sleep apnea among drivers in Estonia**
E. Sõõru (Tallinn, EE)
- 16.40 **31** **Sleep time breathing disorders in Estonian paediatric patients**
H. Vaher, P. Kasenõmm, V. Vasar, M. Veldi (Tartu, EE)
- 17.00 **32** **Sleep disordered breathing in women**
E. Lindberg (Uppsala, SE)
- 17.20 **33** **Myocardial electric instability in patients with various degree of sleep apnea**
M. Pindmaa (Tallinn, EE)
- 17.40 **34** **Sleep apnea as the main reason of sudden cardiac death at night**
J. Kaik (Tallinn, EE)
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Tuesday, 16 September 2014

17.00 – 18.30 **ESRS Women's Forum** Lecture Hall B

ESRS Forum for European women in sleep research

Chair: R. Winsky-Sommerer (Guildford, GB)

17.00 **35a** **The representation of women in research**
R. Winsky-Sommerer (Guildford, GB)

17.20 **Discussion**

17.45 **35b** **Advice on personal development and scientific career in the academic and clinical contexts**
T. Paunio (Helsinki, FI)

18.05 **Discussion**

18.30 – 20.00 **Opening ceremony** Exhibition

08.30 – 10.30 **Opening Ceremony** Lecture Hall A
European Sleep Science Award
Young Scientist Symposium

Chairs: *P. Peigneux (Brussels, BE)*
 E. Sõõru (Tallinn, EE)

08.30 **36** **Welcome address by ESRS President**
P. Peigneux (Brussels, BE)

08.40 **37** **Welcome address by Minister of Health and Labour of Estonia**
U. Kruuse (EE)

08.45 **Entertainment**

08.50 **38** **Welcome address by ESMA President**
E. Sõõru (Tallinn, EE)

08.55 **Entertainment**

European Sleep Science Award

09.00 **39** **Introduction**
P. Peigneux (Brussels, BE)

09.05 **40** **Laudatio**
D.-J. Dijk (Guildford, GB)

09.15 **41** **Presentation by the Award winner**

Young Scientist Symposium

09.30 **42** **Region-specific response to sleep restriction in children: associations with performance and myelination**
S. Kurth, S.C.L. Deoni, P. Achermann, D.C. Dean, M.R. Doucette, J. O'Muircheartaigh, M.K. LeBourgeois (Boulder, Providence, US; Zurich, CH)

09.45 **43** **Upper airway collapsibility is sleep state-dependent**
D.J. Eckert, A.S. Jordan, D.P. White, A. Wellman (Melbourne, Randwick, AU; Boston, US)

10.00 **44** **Investigating the role of microRNAs in sleep homeostasis**
G.M. Mang, S. Jimenez, F. Consales-Barras, J. Weber, P. Franken (Lausanne, CH)

10.15 **45** **The impact of sleep on three-ball cascade juggling**
K. Hoedlmoser, K. Bothe, S. Tibi, D. Koerner, G. Gruber, M. Schabus (Salzburg, Vienna, AT)

Wednesday, 17 September 2014

11.00 – 12.00 Oral Session

Lecture Hall A

Learning, memory and cognition

Chairs: S. Schwartz (Geneva, CH)
L. Talamini (Amsterdam, NL)

- 11.00 46 **Slow oscillations during sleep orchestrate interregional communication in cortical networks**
L. Talamini, J. van Driel, M. de Boer, R. Cox (Amsterdam, NL)
- 11.12 47 **Afternoon nap and exposure to bright light to prevent post-prandial decreases in task switching**
R. Leproult, H. Slama, G. Deliens, R. Schmitz, P. Peigneux (Brussels, BE)
- 11.24 48 **No effect of sleep on the generalization of fear learning**
P. Davidson, I. Carlsson, P. Jönsson (Kristianstad, Lund, SE)
- 11.36 49 **Factors influencing mechanisms supporting overnight declarative memory consolidation**
M. Wislowska, D.P.J. Heib, H. Griessenberger, K. Hoedlmoser, M. Schabus (Salzburg, AT)
- 11.48 50 **Mathematical modeling and ADORA2A genotype elucidate individual differences in the effects of sleep loss on risky decision-making**
A.M. Tucker, S.C. Holst, H.-P. Landolt (Amsterdam, NL; Zürich, CH)

11.00 – 12.00 Oral Session

Lecture Hall B

Interactions between sleep and circadian rhythm

Chairs: D.-J. Dijk (Guildford, GB)
C. Cajochen (Basel, CH)

- 11.00 51 **Chronotype-specific alterations in semantic priming performance during functional MRI (fMRI)**
J. Rosenberg, M. Reske, N.J. Shah (Jülich, DE)
- 11.12 52 **Circadian regulation of EEG slow waves and phase coherence in human sleep**
A.S. Lazar, Z.I. Lazar, D.-J. Dijk (Guildford, GB; Cluj-Napoca, RO)
- 11.24 53 **Human cortical excitability depends on time awake and circadian phase**
J.Q.M. Ly, G. Gaggioni, S.L. Chellappa, S. Papachilleos, A. Brzozowski, C. Borsu, S.N. Archer, M. Rosanova, S. Sarrasso, D.-J. Dijk, C. Phillips, P. Maquet, M. Massimini, G. Vandewalle (Liège, BE; Guildford, GB; Milan, IT)
- 11.36 54 **Impact of sleep pressure, circadian phase and the ADA polymorphism on cerebral correlates underlying working memory performance**
C.F. Reichert, M. Maire, V. Gabel, A.U. Viola, K. Scheffler, M. Klarhöfer, W. Strobel, C. Cajochen, C. Schmidt (Basel, CH)
- 11.48 55 **Individual differences in the non-image forming effects of light on human sleep**
S.L. Chellappa, A. Viola, C. Schmidt, V. Bachmann, V. Gabel, M. Maire, C.F. Reichert, A. Valomon, H.-P. Landolt, C. Cajochen (Basel, Zurich, CH)

Wednesday, 17 September 2014

11.00 – 12.00 Oral Session

Lecture Hall C

Insomnia – from structure to dysfunction

Chairs: R. Winsky-Sommerer (Guildford, GB)
D. Riemann (Freiburg, DE)

- 11.00 56 **Reduced anterior internal capsule white matter integrity in primary insomnia**
K. Spiegelhalder, W. Regen, C. Baglioni, C. Nissen, B. Feige, D. Riemann (Freiburg, DE)
- 11.12 57 **Differential brain structural correlates of insomnia severity in affective disorders**
D. Stoffers, M.J. van Tol, B.W. Penninx, D.J. Veltman, N.J. van der Wee, E.J. van Someren (Amsterdam, Groningen, Leiden, NL)
- 11.24 58 **Cortical thinning in patients with persistent insomnia is associated with reduced structural connectivity in the default mode network**
S. Suh, H. Kim, T.T. Dang-Vu, C. Shin (Ansan, Seoul, KR; San Francisco, US; Montreal, CA)
- 11.36 59 **Sleep restriction therapy for insomnia: an exploratory assessment of sleep and physiological markers of arousal in response to treatment**
C.B. Miller, C.J. Gordon, R.R. Grunstein, S.D. Kyle, C.A. Espie, A.E. Mullins, D.J. Bartlett (Glebe, AU; Manchester, Oxford, GB)
- 11.48 60 **Correlates of sleep misperception**
C.H. Bastien, J. Lebel, A. Gaucher (Québec, CA)

11.00 – 12.00 Oral Session

Lecture Hall D

From mice to man and one bird – physiology of sleep

Chairs: R. Amici (Bologna, IT)
I. Tobler (Zurich, CH)

- 11.00 61 **Prior light history impacts on cognitive brain function**
S.L. Chellappa, J.Q.M. Ly, C. Meyer, E. Balteau, C. Delguedre, A. Luxen, C. Phillips, H.M. Cooper, G. Vandewalle (Liège, BE; Bron, FR)
- 11.12 62 **Dynamics of fractal indices extracted from human EEG suggest how NREM-related synchronous resets compete with self-organization and protect sleep unconsciousness via fragmentation of functional connectivity**
P. Allegrini, P. Paradisi, M. Laurino, A. Piarulli, D. Menicucci, A. Gemignani (Pisa, IT)
- 11.24 63 **Cardiorespiratory control during sleep in histamine-deficient mice**
A. Silvani, S. Bastianini, C. Berteotti, G. Cohen, J.-S. Lin, V. Lo Martire, H. Ohtsu, G. Zoccoli (Bologna, IT; Stockholm, SE; Lyon, FR; Sendai, JP)
- 11.36 64 **Sleep and vigilance linked to melanism in wild barn owls (*Tyto alba*)**
M.F. Scriba, N.C. Rattenborg, A.N. Dreiss, A.L. Vyssotski, A. Roulin (Lausanne, Zurich, CH; Seewiesen, DE)
- 11.48 65 **Heartbeat evoked EEG responses from wake to sleep**
J. Lechinger, D.P.J. Heib, W. Gruber, M. Schabus, W. Klimesch (Salzburg, AT)

Wednesday, 17 September 2014

11.00 – 12.00 Case Discussion Lecture Hall E

Treat or not to treat non sleepy OSA patients

Chair: *J. Puertas (Valencia, ES)*

- 66 Discussants**
J.-L. Pepin (Grenoble, FR)
D. Pevernagie (Gent, BE)
-

12.00 – 13.30 Lunch and Poster Viewing Exhibition

12.15 – 13.15 Satellite Industry Symposium Lecture Hall D

Philips Respironics

Managing co-morbidities in the sleep disordered breathing patient: case discussions

Chair: *L. Grote (Gothenburg, SE)*

- 67 Sleep disordered breathing in the patient with metabolic disease**
L. Grote (Gothenburg, SE)
- 68 Sleep disordered breathing in the patient with obesity hypoventilation syndrome**
W. Randerath (Solingen, DE)
-

12.15 – 13.15 ESRS and the European Union: Lecture Hall E

Perspectives for sleep research and sleep medicine

Chairs: *P. Peigneux (Brussels, BE)*
R. Amici (Bologna, IT)

Introduction

- 12.15 **68a Thinking European: an added value for sleep research and sleep medicine**
P. Peigneux (Brussels, BE)
- The (recent) past**
- 12.20 **68b The interaction with the EU Commission in 2012-2013**
R. Amici (Bologna, IT)
- 12.25 **68c The “Wake-up bus” project**
M. Gonçalves (Porto, PT)
- 12.30 **68d The new standards and guidelines for drivers with obstructive sleep apnoea syndrome**
W. McNicholas (Dublin, IE)
- 12.35 **68e Horizon 2020 – Proposed topic for upcoming call 2016-2017: sleep mechanisms, sleep functions and sleep disorders**
P. Philip (Bordeaux, FR)
- 12.40 **The future: open discussion**
-

Wednesday, 17 September 2014

13.30 – 15.30 **Joint Symposium**

Lecture Hall A

Joint Symposium ESR-ESRS

Cardiometabolic co-morbidities of OSAS

Chairs: *M. Bonsignore (Palermo, IT)*
 L. Grote (Gothenburg, SE)

- 69** **Sleep apnoea and obesity**
M. Bonsignore (Palermo, IT)
- 70** **Sleep apnoea and cardiac disease**
W. McNicholas (Dublin, IE)
- 71** **Sleep apnoea and hypertension**
G. Parati (Milan, IT)
- 72** **Sleep apnoea and cerebrovascular disease**
J.-L. Pepin (Grenoble, FR)

13.30 – 14.30 **Round Table**

Lecture Hall B

Therapeutic management of RLS/WED:

Side effects, drug interactions, special situations

Chair: *R. Silvestri (Messina, IT)*

- 73a** **Pro and contra of dopaminergic therapy**
L. Ferini-Strambi (Milan, IT)
- 73b** **Pregabalin in idiopathic versus secondary RLS**
D. Garcia-Borreguero (Madrid, ES)
- 73c** **Paediatric RLS: special requirement and interaction with co-morbid neurodevelopmental disorders**
R. Silvestri (Messina, IT)

13.30 – 14.30 **Round Table**

Lecture Hall C

Nightmares

Chair: *M. Schredl (Mannheim, DE)*

- 74a** **Risk factors for frequent nightmares: The FINRISK survey**
K. Valli (Turku, FI)
- 74b** **Imagery rehearsal therapy in psychiatric patients and exposure versus IRT**
J. Lancee (Amsterdam, NL)
- 74c** **Help seeking behaviour in frequent nightmare sufferers**
M. Schredl (Mannheim, DE)

Wednesday, 17 September 2014

14.30 – 15.30 Round Table Lecture Hall B

Delayed sleep phase disorder in adolescents

Chair: P.C. Zee (Chicago, US)

75

Discussants

L. Lack (Adelaide, AU)

D.-J. Dijk (Guildford, GB)

B. Bjorvatn (Bergen, NO)

14.30 – 15.30 Round Table Lecture Hall C

Narcolepsy related to infections and vaccinations

Chair: M. Partinen (Helsinki, FI)

14.30 76

Infections and vaccinations triggering narcolepsy: current knowledge

M. Partinen (Helsinki, FI)

14.50 77

Narcolepsy as an autoimmune disease: current immunogenetic and immunological evidence

B. Rahbeck Komum (Glostrup, DK)

15.10

Discussion:

Hot topics and questions about narcolepsy as an autoimmune disease

13.30 – 15.30 Symposium Lecture Hall D

"Circadian or sleep-wake driven? Dissecting central and peripheral transcriptome dynamics"

Chairs: P. Franken (Lausanne, CH)

T. Paunio (Helsinki, FI)

79

Brain gene expression in the mouse; the complex interaction of time-spent-awake, time-of-day, and stress

P. Franken (Lausanne, CH)

80

Interaction of sleep timing and clock function in the regulation of circadian transcriptome rhythms

H. Oster (Lübeck, DE)

81

Mistimed sleep disrupts the circadian regulation of the human transcriptome

S. Archer, E.E. Laing, C.S. Moller-Levet, D.R. van der Veen, G. Bucca, A.S. Lazar, J.C.Y. Lo, N. Santhi, A. Slak, R. Kabiljo, M. von Schantz, C.P. Smith, D.J. Dijk (Guildford, GB)

82

Body temperature cycles: gatekeepers of circadian clocks

I. Gotic (Geneva, CH)

Wednesday, 17 September 2014

13.30 – 15.30 Symposium Lecture Hall E

Sleep and brain maturation: development of sleep-regulatory mechanisms and interactions between sleep and brain maturation

*Chairs: I. Gvilia (Tbilisi, GE)
M. Kimura (Munich, DE)*

- 83 Post-weaning development of sleep and sleep-regulatory mechanisms in the rat**
I. Gvilia (Tbilisi, GE)
- 84 Life-long alterations of sleep patterns and emotional behavior after transient serotonin impairments during development**
J. Adrien (Paris, FR)
- 85 Sleep maturation and developmental disorders**
S. Nevsimalova (Prague, CZ)
- 86 Influence of pre- and post-natal environmental factors on sleep maturation in infants**
P. Franco (Lyon, FR)
-

16.00 – 16.45 Keynote Lecture Lecture Hall A

Chair: P. Peigneux (Brussels, BE)

- 87 Memory consolidation: synaptic tagging, schemas and sleep**
R. Morris (Edinburgh, GB)
-

17.00 – 18.00 Oral Session Lecture Hall A

Sleep across the ages

*Chairs: J. Carrier (Montreal, CA)
P. Achermann (Zurich, CH)*

- 17.00 **88 Cortical thinning mediates age-related changes in NREM sleep oscillations during adulthood**
J. Dubé, M. Lafortune, M. Bouchard, T. Rosinvil, P.-O. Gaudreault, J.-M. Lina, J. Doyon, A. Evans, J. Carrier (Montréal, CA)
- 17.12 **89 Developmental changes in sleep oscillations during early childhood**
E. Olbrich, M.K. LeBourgeois, P. Achermann (Leipzig, DE; Boulder, US; Zürich, CH)
- 17.24 **90 Association between white matter integrity markers in the corpus callosum and NREM interhemispheric EEG coherence in aging**
M. Bouchard, M. Lafortune, J. Dubé, P.-O. Gaudreault, J. Godbout, C. Bedetti, J.-M. Lina, J. Doyon, J. Carrier (Montreal, CA)
- 17.36 **91 Effects of long-term caloric restriction on circadian rhythms of aged rats**
K.A. Dunberry, M. Malick, G. Ferland, P. Gaudreau, G. Rousseau, R. Godbout (Montréal, CA)
- 17.48 **92 Are age-related modifications in spindle characteristics linked to markers of white matter integrity?**
P.-O. Gaudreault, M. Lafortune, C. Bedetti, J. Dubé, M. Bouchard, J.-F. Gagnon, J. Doyon, N. Gosselin, J. Carrier (Montreal, CA)
-

The European Insomnia Network: an update

Chairs: *D. Riemann (Freiburg, DE)*
E. Van Someren (Amsterdam, NL)

- 93 **Insomnia treatment as prevention of psychiatric and cardiovascular diseases**
K. Spiegelhalder (Freiburg, DE)
- 94 **Sleep restriction therapy: effectiveness, mechanisms and potential for adverse effects**
S.D. Kyle (Manchester, GB)
- 95 **The cognitive components of CBT-I**
M. Jansson-Fröjmark (Stockholm, SE)
- 96 **Insomnia subtypes**
E. Van Someren (Amsterdam, NL)

Sleep apnea

Chairs: *J. Verbraecken (Antwerp, BE)*
T. Saaresranta (Turku, FI)

General discussion

- 97a **Do we need an OSA network in Europe? Upsides and possibilities associated with research networks in sleep apnea**
W. McNicholas (Dublin, IE)
- 97b **The European Sleep Apnea Database (ESADA) – what has been achieved so far?**
J. Hedner (Gothenburg, SE)
- Update on recent ESADA data**
- 97c **Sleep apnea and renal function**
M. Bonsignore (Palermo, IT)
- 97d **Advanced Sleep EEG analysis in the ESADA network**
T. Penzel (Berlin, DE)
- 97e **Use of the Clinical Global Impression Scale in the ESADA cohort**
L. Grote (Gothenburg, SE)
- 97f **Periodic limb movements and blood pressure in OSA**
G. Parati (Milan, IT)

Wednesday, 17 September 2014

17.00 – 18.30 European Network Session Lecture Hall D

EURLSSG Network

*Chairs: B. Högl (Innsbruck, AT)
R. Ferri (Troina, IT)*

- 17.00 **98** **Nocturnal eating and nocturnal smoking in RLS**
F. Provini (Bologna, IT)
- 17.30 **99** **EEG high frequencies and hyperarousal during the sleep onset period in patients with restless legs syndrome**
R. Ferri (Troina, IT)
- 18.00 **100** **Peripheral hypoxia in RLS**
*O. Polo (Tampere, FI)
A. Salminen (Tampere, FI)*
-

17.00 – 18.30 European Network Session Lecture Hall E

EUropean Narcolepsy Network EU-NN

Chair: G.J. Lammers (Leiden, NL)

- 101** **Past: overview of EU-NN publications and achievements since 2012**
G.J. Lammers (Leiden, NL)
- 102** **Present: current projects and databases**
*M. Tafti (Lausanne, CH)
M. Partinen (Helsinki, FI)
R. Khatami*
- 103** **Future: where are we heading?**
*G.J. Lammers (Leiden, NL)
R. Riha (Edinburgh, GB)*

Presentations to host European Narcolepsy Day 2015 and 2016

18.30 – 20.00 Poster Sessions Poster Exhibition

(Please refer to pages 41 - 56 for details)

Pharmacology and Biochemistry	P305-P309
Physiology	P310-P345
Learning, Memory and Cognition 1	P346-P364
Instrumentation and Methodology (Basic Sleep Science)	P365-P380
Sleep Disorders - Breathing 1	P381-P422
Sleep Disorders - Circadian Rhythms	P423-P439
Sleep Disorders - Insomnia 1	P440-P472
Sleep Disorders – Parasomnias	P473-P482
Medical Disorders and Sleep	P483-P523
Normal Physiology of Sleep and Normal Variants	P524-P533
Instrumentation and Methodology	P534-P552

Thursday, 18 September 2014

08.00 – 10.00 **Joint Symposium** Lecture Hall A

Joint Symposium EAN-ESRS

Update on the neurology of sleep

Chairs: *C. Bassetti (Berne, CH)*
 L. Nobili (Milan, IT)

- 104** **Hypersomnia and insomnia secondary to brain damage**
C. Bassetti (Berne, CH)
 - 105** **Sleep and epileptogenesis**
L. Nobili (Milan, IT)
 - 106** **RLS: a dopamine dysregulation syndrome?**
L. Ferini-Strambi (Milan, IT)
 - 107** **Sleep and movement disorders**
J. Santamaria (Barcelona, ES)
-

08.00 – 10.00 **Symposium** Lecture Hall B

Farewell to the two-process model?

Chairs: *A. Borbély (Zurich, CH)*
 P. Peigneux (Brussels, BE)

- 108** **The two-process model: origin and perspective**
S. Daan, R.A. Hut, D. Beersma (Groningen, NL)
 - 109** **Interaction of sleep homeostasis and circadian rhythms**
T. de Boer (Leiden, NL)
 - 110** **The two-process model: its impact on clinical research**
A. Wirz-Justice (Basel, CH)
 - 111** **Sleep and the environmental 24-hour cycle**
A. Borbély (Zurich, CH)
-

08.00 – 10.00 **Symposium** Lecture Hall C

Sleep and the social brain

Chairs: *J. Axelsson (Stockholm, SE)*
 M. Ferrara (L'Aquila, IT)

- 112** **Sleep loss, prefrontal cortex function and behavioral control**
P. Meerlo (Groningen, NL)
 - 113** **Sleep and emotion processing in children**
M. Le Bourgeois (Boulder, US)
 - 114** **Sleep loss and emotion in adolescents and adults**
P. Franzen (Pittsburgh, US)
 - 115** **Sleep, appearance and social interactions**
J. Axelsson (Stockholm, SE)
-

Technical aspects of scoring sleep

*Chairs: S. de Lacy (Orihuela Costa, ES)
J. Puertas (Valencia, ES)*

- 08.00 116 **Sleep apnea diagnosis greatly varies with the hypopnea criteria applied**
L.B. Ponsaing, H.K. Iversen, P. Jennum (Glostrup, DK)
- 08.12 117 **Scoring criteria for polygraphy: a comparison with full polysomnography using four hypopnea definitions in a population based sleep cohort**
S. Vat, J. Haba Rubio, N. Tobback, D. Andries, M. Tafti, R. Heinzer (Lausanne, CH)
- 08.24 118 **Transcutaneous carbon dioxide during periodic breathing and upper airway flow-limitation during sleep**
V. Rimpilä, T. Saaresranta, K. Hosokawa, H. Huhtala, A.V. Salminen, O. Polo (Tampere, FI)
- 08.36 119 **A validation study of the Watch PATm in participants of the Akershus sleep apnoea project (ASAP)**
H. Hrubos-Strøm, A. Randby, S.K. Namtvedt, G. Einvik, T. Omland (Lørenskog, NO)
- 08.48 120 **Transition to home monitoring for OSA diagnosis: effects on test availability, waiting time, patients' satisfaction and outcome in a large health provider system**
G. Pillar, A. Safadi, T. Etzioni, D. Fliss, C. Shapira (Haifa, Tel Aviv, IL)
- 09.00 121 **High cardiac vagal control during wakefulness predicts better subjective and objective sleep quality**
G.G. Werner, B.Q. Ford, I.B. Mauss, J. Blechert, M. Schabus, F.H. Wilhelm (Salzburg, AT; Berkeley, US)
- 09.12 122 **K-Complex characteristics in obstructive sleep apnea syndrome**
S. Parapatits, G. Gruber, P. Anderer, G. Saletu-Zyhlarz (Vienna, AT)
- 09.24 123 **Physiologically-based brain state estimation and dynamics**
R.G. Abeyesuriya, C.J. Rennie, P.A. Robinson, S. Postnova (Sydney, AU)
- 09.36 124 **The maintenance of wakefulness test: an electro-physiological measure to better evaluate adult patients with attention deficit/hyperactivity disorder**
S. Bioulac, C. Chauton, J. Taillard, P. Sagaspe, P. Philip (Bordeaux, FR)

Investigating the function(s) of sleep from the perspective of a single cell to the systems level

*Chairs: R. Huber (Zurich, CH)
T. de Boer (Leiden, NL)*

- 125 **Global sleep and single-cell rest**
V.V. Vyazovskiy (Surrey, GB)
- 126 **Astroglia and sleep regulation**
M. Frank (Philadelphia, US)
- 127 **Evolution of slow-wave sleep**
N. Rattenborg (Seewiesen, DE)
- 128 **Sleep homeostasis in vitro**
M. Tafti (Lausanne, CH)

Thursday, 18 September 2014

10.30 – 12.30 Symposium

Lecture Hall B

What keeps you awake? Insomnia subtypes

*Chairs: E. Van Someren (Amsterdam, NL)
D. Riemann (Freiburg, DE)*

- 129 **Persistent insomnia: the role of objective short sleep duration and mental health**
A. Vgontzas (Hershey, US)
- 130 **The use of brain imaging to define subtypes of insomnia and corresponding different underlying mechanisms**
E.J.W. Van Someren (Amsterdam, NL)
- 131 **Predicting transitions between acute and chronic insomnia using insomnia subtypes**
J. Ellis (Newcastle upon Tyne, GB)
- 132 **The use of internet to find insomnia subtypes: mining a large database**
J.S. Benjamins (Amsterdam, NL)

10.30 – 11.30 Round Table

Lecture Hall C

Sleep disordered breathing: what device to choose

Chair: R. Riha (Edinburgh, GB)

- 10.30 **133a Introduction**
R. Riha (Edinburgh, GB)
- 10.35 **133b Which device should be used for the diagnosis of sleep-disordered breathing?**
E. Hill (Edinburgh, GB)
- 10.50 **133c Which device should be used for treating sleep-disordered breathing?**
T. Saaresranta (Turku, FI)
- 11.05 **133d Should follow-up of sleep disordered breathing be device-driven? Is compliance so important? Is there a role for telemonitoring?**
J.-L. Pepin (Grenoble, FR)
- 11.20 **Open discussion with questions from the audience to the panel and chairperson**

11.30 – 12.30 Round Table

Lecture Hall C

Sleep in pathological ageing

Chair: M.D. Gjerstad (Stavanger, NO)

- 11.30 **134 Introduction: sleep in the ageing brain**
M.D. Gjerstad (Stavanger, NO)
- 11.35 **135 Exercise benefits for the aging brain**
M.D. Gjerstad (Stavanger, NO)
- 11.55 **136 Sleep in dementia**
G. Rauchs (Caen, FR)
- 12.15 **Discussion**

Thursday, 18 September 2014

10.30 – 12.30 Symposium

Lecture Hall D

Metabolic, cerebral and behavioural consequences of sleep loss and circadian misalignment

Chairs: C. Schmidt (Basel, CH)
S. Archer (Giuldford, GB)

- 137 **Impact of circadian phase and prior wakefulness on cognition-related cerebral activity in humans**
C.F. Reichert, M. Maire, V. Gabel, A.U. Viola, K. Scheffler, M. Klarhöfer, W. Strobel, C. Cajochen, C. Schmidt (Basel, CH)
- 138 **Sleep homeostasis and the circadian timing system set the dynamics and excitability of neuronal ensembles**
G. Vandewalle (Liège, BE)
- 139 **Metabolic consequences of circadian misalignment and insufficient sleep**
K. Wright (Boulder, US)
- 140 **Diversity in sleep homeostatic and circadian regulation of plasma lipids in human**
J.J. Gooley (Singapore, SG)

10.30 – 12.30 Symposium

Lecture Hall E

Sleep and memory consolidation: new insights and models

Chairs: G. Albouy (Montreal, CA)
S. Schwartz (Geneva, CH)

- 141 **New model detailing the role of the hippocampus in sleep-related procedural memory consolidation**
G. Albouy (Montreal, CA)
- 142 **Upgrading the sleeping brain with targeted memory reactivation**
D. Oudiette (Evanston, US)
- 143 **New insights on the consolidation of emotional memories during sleep**
V. Sterpenich (Geneva, CH)
- 144 **Sleep-dependent motor memory consolidation from adolescence to adulthood**
K. Hoedlmoser (Salzburg, AT)

12.45 – 13.45 Satellite Industry Symposium

Lecture Hall D

Nox Medical

From habitual snoring to obstructive sleep apnea – How to measure and who needs treatment?

Chair: T. Penzel (Berlin, DE)

- 144a **Sleep disordered breathing in the general population – A major public health problem**
T. Gislason (Reykjavik, IS)
- 144b **Breath-by-breath analyses – new ways to assess respiratory effort**
E. Sif Arnardottir (Reykjavik, IS)

Thursday, 18 September 2014

12.30 – 14.00 **Lunch and Poster Viewing** Exhibition

12.45 – 13.45 **Educational Session on Publishing** Lecture Hall E

How do you want your sleep research to be published?

Chairs: *D.-J. Dijk (Guildford, GB)*
 L. Cranfield (Frederiksberg, DK)

14.00 – 15.00 **Oral Session** Lecture Hall A

Hypersomnia: diagnosis to treatment

Chairs: *Y. Dauvilliers (Montpellier, FR)*
 J. Santamaria (Barcelona, ES)

- 14.00 **145** **Perception of sleepiness in a driving simulator is better than perception in the maintenance of wakefulness test**
D. Schreier, C. Roth, J. Mathis (Bern, CH)
- 14.12 **146** **Narcolepsy in Norway after 2009 +/- H1N1-vaccination - the 4 year status**
M.S. Heier, K.M. Gautvik, E. Waanag, K.H. Bronder, E. Midtlyng, Y. Kamaleri, P.M. Thorsby, J. Storsaeter, S. Knudsen (Oslo, NO)
- 14.24 **147** **Oral JZP-110 (ADX-N05) for the treatment of excessive daytime sleepiness in adults with narcolepsy: results of a randomised, double-blind, placebo-controlled trial**
J. Black, T. Swick, N. Feldman, R. Doekel Jr, M. Khayrallah, G. Bream, C. Ruoff (Birmingham, Houston, Morrisville, Palo Alto, Redwood City, St. Petersburg, US)
- 14.36 **148** **Modafinil improves real driving performance in patients with hypersomnia: a randomized double-blind placebo-controlled crossover clinical trial**
P. Philip, C. Chauton, J. Taillard, A. Capelli, O. Coste, D. Léger, N. Moore, P. Sagaspe (Bordeaux, Paris, FR)
- 14.48 **149** **Sodium oxybate for the treatment of excessive daytime sleepiness and cataplexy in patients with narcolepsy: time to response**
R.K. Bogan, T. Roth, J. Schwartz, M. Miloslavsky (Columbia, Detroit, Oklahoma City, Palo Alto, US)
-

Circadian rhythm disorders from clock to clocking off

*Chairs: C. Cajochen (Basel, CH)
C. Gronfier (Bron, FR)*

- 14.00 150 **Core temperature and melatonin circadian rhythm period lengths are longer in delayed sleep phase disorder patients than controls**
G. Micic, N. Lovato, M. Gradisar, S.A. Ferguson, H.J. Burgess, L.C. Lack (Adelaide, AU; Chicago, US)
- 14.12 151 **Measuring melatonin in saliva before the start of light therapy in delayed sleep phase disorder**
K. Danielsson, M. Jansson-Fröjmark, J.-E. Broman, A. Markström (Stockholm, Uppsala, SE)
- 14.24 152 **Difficult morning awakening from REM sleep and impaired cognitive function in delayed sleep phase disorder patients**
B. Solheim, K. Langsrud, H. Kallestad, A. Olsen, B. Bjorvatn, T. Sand (Bergen, Trondheim, NO)
- 14.36 153 **How does alertness differ between healthy employees and those with shift work disorder?**
P. Vanttola, M. Härmä, K. Viitasalo, C. Hublin, P. Niemelä, M. Sallinen, J. Virkkala, S. Puttonen (Helsinki, Vantaa, FI)
- 14.48 154 **Sleep schedules and social jetlag in students with delayed sleep phase disorder and controls**
I.W. Saxvig, A. Wilhelmsen-Langeland, S. Pallesen, B. Bjorvatn (Bergen, NO)

Sound asleep: the translation of sleep patterns into music

*Chairs: M. Mermikides (Guildford, GB)
D. Skene (Guildford, GB)*

- 155 **Hidden music: the history and art of data sonification, translating physical and biological phenomena into sound**
M. Mermikides (Guildford, GB)
- 156 **Making sleep visible to the blind**
D. Skene (Guildford, GB)
- 157 **PSG nocturne: converting PSG data into multi-layered musical compositions**
R. Riha (Edinburgh, GB)
- 158 **The inner sound of sleep: converting EEG waves into the audio spectrum**
V. Vyazovskiy (Surrey, GB)

Thursday, 18 September 2014

14.00 – 15.00 Video Session

Lecture Hall D

Paroxysmal motor phenomena during sleep

Chair: R. Manni (Pavia, IT)

159 Unusual motor phenomena during sleep

F. Provini (Bologna, IT)

160 Paroxysmal motor patterns in nocturnal frontal lobe epilepsy

C. Derry (Edinburgh, GB)

161 Motor patterns during sleep in extrapyramidal diseases

B. Högl (Innsbruck, AT)

14.00 – 15.00 Case Discussion

Lecture Hall E

Therapy refractory insomnia: what to do?

Chair: D. Riemann (Freiburg, DE)

162 The complicated co-morbid insomniac patient. Diagnosis and management

P. Jennum (Glostrup, DK)

163 Insomnia disorder in the context of psychosis?

C. Espie (Oxford, GB)

164 Insomnia is sometimes incurable

H.L. Hamburger (Amsterdam, NL)

15.30 – 16.15 Keynote Lecture

Lecture Hall A

Chair: D. Riemann (Freiburg, DE)

165 Sleep, mental illness and health: frontiers in transdiagnostic empirically grounded treatment generation

A. Harvey (Berkeley, US)

Thursday, 18 September 2014

16.15 – 17.45 **Poster Sessions** Poster Exhibition

(Please refer to pages 57 - 72 for details)

Ontogeny/Aging	P553-P558
Chronobiology	P559-P586
Learning, Memory and Cognition 2	P587-P606
Dreaming	P607-P609
Sleep Deprivation 1	P610-P629a
Sleep Disorders - Breathing 2	P630-P674
Sleep Disorders - Insomnia 2	P675-P707
Sleep Disorders - Movement Disorders	P708-P736
Psychiatric and Behavioural Disorders and Sleep	P737-P759
Sleep and Aging	P760-P776
Healthcare Services, Research and Education	P777-P794

16.30 – 18.00

Sokos Hotel Viru, Conference Room Allegro

**Meeting of the European Academy of Neurology (EAN) Sleep Neurology Panel (EAN-SNP)
with ESRS neurologists**

18.00 – 20.00 **ESRS Business Meeting**

Lecture Hall B

08.00 – 10.00 **Symposium** Lecture Hall A

Metabolomics in sleep research: integration from animals to humans

Chairs: *T. Porkka-Heiskanen (Helsinki, FI)*

P. Meerlo (Groningen, NL)

- 166** **Metabolic consequences of chronic sleep restriction in rats**
P. Meerlo (Groningen, NL)
- 167** **Lipid profiles after experimental restriction of sleep and in an epidemiological cohort reporting insufficient sleep**
T. Porkka-Heiskanen (Helsinki, FI)
- 168** **Chronic sleep restriction alters metabolomic profiles in healthy humans**
N. Goel (Philadelphia, US)
- 169** **Effect of sleep deprivation on human plasma metabolome rhythms**
D.J. Skene, S.K. Davies, J.E. Ang, V.L. Revell, B. Holmes, A. Mann, R. Robertson, N. Cui, B. Middleton, K. Ackermann, M. Kayser, A.E. Thumser, F.I. Raynaud (Guildford, London, GB; Rotterdam, NL)
-

08.00 – 10.00 **Symposium** Lecture Hall B

Sleep-related neurostimulation: mechanisms and clinical implications

Chairs: *C. Nissen (Freiburg, DE)*

M. Massimini (Milan, IT)

- 170** **Investigating sleep homeostasis by means of transcranial magnetic stimulation**
R. Huber (Zurich, CH)
- 171** **Closed-loop stimulation of sleep oscillations**
H.-V. Ngo (Tübingen, DE)
- 172** **The impact of high-frequency stimulation on sleep**
H. Danker-Hopfe (Berlin, DE)
- 173** **The modulation of sleep continuity through transcranial direct current stimulation (TDCS)**
C. Nissen, L. Frase, H. Piosczyk, B. Feige, A. Sterr, D. Riemann (Freiburg, DE; Guildford, GB)
-

Friday, 19 September 2014

08.00 – 10.00 Symposium

Lecture Hall C

Impact of sleep disordered breathing in neurological sleep disorders

*Chairs: R. Riha (Edinburgh, GB)
M. Zucconi (Milan, IT)*

- 174 Sleep disordered breathing in epilepsy**
C. Derry (Edinburgh, GB)
- 175 Sleep disordered breathing and paradoxical insomnia**
D. Pevernagie (Rotterdam, NL)
- 176 Role of sleep disorder breathing in REM sleep behavior disorder**
A. Iranzo (Barcelona, ES)
- 177 Sleep disordered breathing in diagnoses of narcolepsy**
R. Riha (Edinburgh, GB)

08.00 – 10.00 Symposium

Lecture Hall D

Behavior problems and treatment possibilities in child and adolescent sleep problems

*Chairs: A. Schlarb (Bielefeld, DE)
A.M. Meijer (Amsterdam, NL)*

- 178 Internalizing behavior problems in primary school children with insomnia**
B. Schwerdtle, A. Kübler, A.A. Schlarb (Würzburg, DE)
- 179 Melatonin treatment and classical conditioning in children with delayed sleep phase**
A. van Maanen, A.M. Meijer, M.G. Smits, F.J. Oort (Amsterdam, Ede, NL)
- 180 Aggression and violent behavior and sleep problems in young students**
A.A. Schlarb, R. Sopp (Bielefeld, Landau, DE)
- 181 Efficacy of cognitive behavior therapy in adolescents with insomnia: an RCT with group-CBTi, internet-CBTi and a waiting list condition**
E.J. de Bruin, F.J. Oort, S.M. Bögels, A.M. Meijer (Amsterdam, NL)

10.30 – 12.30 Joint Symposium

Lecture Hall A

Joint Symposium EBRs-ESRS

Linking clocks and sleep

*Chairs: D. Skene (Guildford, GB)
P. Peigneux (Brussels, BE)*

- 182 Identifying pathways modulating sleep duration: From genomics to transcriptomics**
K. Allebrandt (Munich, DE)
- 183 Shift work in flies**
R. Costa (Padua, IT)
- 184 Sleep, circadian, metabolism**
F. Turek (Evanston, US)
- 185 Sleep, circadian, genetics, EEG: How synaptic adhesion molecules contribute to sleep regulation?**
V. Mongrain (Montreal, CA)

Friday, 19 September 2014

10.30 – 12.30 Symposium

Lecture Hall B

Complex breathing disorders during sleep

Chairs: *D. Pevernagie (Gent, BE)*
W. McNicholas (Dublin, IE)

- 186 **Natural evolution of complex sleep apnea: polysomnographic results**
W. Cassel (Marburg, DE)
- 187 **The interaction of obesity, pulmonary disease and sleep-disordered breathing**
A. Rossi (Bergamo, IT)
- 188 **The role of the "central" component in the pathophysiology of complex breathing disorders during sleep**
J. Verbraecken (Egedem, BE)
- 189 **Therapeutical approach of complex breathing disorders during sleep**
W. Randerath (Solingen, DE)

10.30 – 12.30 Symposium

Lecture Hall C

Sensorimotor processes in REM sleep: from RBD to rat pups to robots

Chairs: *J. Peever (Toronto, CA)*
C. Bassetti (Berne, CH)

- 190 **Neuro-circuits controlling muscle atonia during paradoxical (REM) sleep**
P.-H. Luppi (Lyon, FR)
- 191 **Biological functions of muscle tone suppression in sleep**
J. Peever (Toronto, CA)
- 192 **Developing the sensorimotor system in our sleep**
M. Blumberg (Iowa City, US)
- 193 **Sleeping robots: How sleep behaviour drives the development of spinal circuits**
H. Gravato Marques (Zurich, CH)

Memory, cognition and dreaming

Chairs: M. Schabus (Salzburg, AT)
S. Fogel (Montreal, CA)

- 10.30 194 **Memory deficits associated with sleep loss can be prevented by targeting a single phosphodiesterase isoform selectively in excitatory neurons of the hippocampus**
R. Havekes, J.H.K. Choi, V.M. Bruinenberg, G.S. Baillie, K. Krainnock, S.J. Aton, P. Meerlo, M.D. Houslay, T. Abel (Ann Arbor, Philadelphia, US; Groningen, NL; Glasgow, London, GB)
- 10.42 195 **Selective intervention in hippocampal vs. cortical consolidation**
L. Genzel, R. Fitzpatrick, J. Rossato, R.G.M. Morris (Edinburgh, GB)
- 10.54 196 **Working memory ability and topographical distribution of sleep slow wave activity in children and adolescents**
F. Wehrle, B. Latal, R. O'Gorman, L. Kaufmann, A. Hüsser, C. Verrey, H. Breden, C. Hagmann, R. Huber (Zurich, CH; Hall, AT)
- 11.06 197 **Motor memory consolidation depends upon reactivation driven by the action of sleep spindles**
S. Fogel, G. Albouy, B.R. King, C. Vien, A. Karni, H. Benali, P. Maquet, J. Carrier, J. Doyon (Montreal, CA; Haifa, IL; Paris, FR; Liege, BE)
- 11.18 198 **The schema effect and sleep-dependent memory consolidation**
N. Hennes, M.A. Lambon Ralph, J. Cousins, P.A. Lewis (Manchester, GB)
- 11.30 199 **Sleep- and hippocampus-dependent memory consolidation in patients with obstructive sleep apnea**
P.C. Baier, S.L. Weinhold, L. Kaselow, I. Matthäi, R. Göder (Kiel, DE)
- 11.42 200 **A nap to recap: daytime sleep strengthens rewarded relational memory**
K. Igloi, G. Gaggioni, V. Sterpenich, S. Schwartz (Geneva, CH)
- 11.54 201 **Circadian regulation in cognition and subjective assessment of waking function in humans**
N. Santhi, A.S. Lazar, P. McCabe, S.N. Archer, J.A. Groeger, D.-J. Dijk (Guildford, Hull, GB)
- 12.06 202 **The nature of delayed dream incorporation: personally significant events persist, but not major daily activities or concerns**
M.T. Blagrove, J.-B. Eichenlaub, E. van Rijn, M. Phelan, L. Ryder, G. Gaskell, P. Lewis, M.P. Walker (Manchester, Swansea, York, GB; Berkeley, US)
- 12.18 203 **Risk factors for frequent nightmares among the general Finnish adult population**
N. Sandman, K. Valli, E. Kronholm, A. Revonsuo, T. Laatikainen, T. Paunio (Helsinki, Kuopio, Turku, FI)
-

Paediatrics: what`s normal, what`s not*Chairs: O. Jenni (Zurich, CH)**P. Franco (Lyon, FR)*

- 10.30 204 **Influence of body growth on sleep during the first days of life in preterm neonates**
P. Décima, A. Léké, F. Telliez, S. Delanaud, V. Bach, J.-P. Libert, P. Tourneux, E. Stéphan-Blanchard (Amiens, FR)
- 10.42 206 **Evaluation of school-based sleep interventions: does adjunct bright light therapy and parental involvement improve treatment outcomes?**
D. Bonnar, M. Gradisar, L. Moseley, A.-M. Coughlin, N. Cain, M.A. Short (Adelaide, AU)
- 10.54 207 **Incident sleep-disordered breathing associated with cardiovascular risk factors: the Penn State Child Cohort**
E.O. Bixler, D. Liao, A.N. Vgontzas, J. Fernandez-Mendoza, F. He, S. Rodriguez-Colon, S. Elavsky, A. Vela-Bueno (Hershey, US; Madrid, ES)
- 11.06 208 **Increased cortisol levels are associated with polysomnographic sleep disturbance in adolescence**
J. Fernandez-Mendoza, J. Gaines, S. Calhoun, A. Vgontzas, D. Liao, E. Bixler (Hershey, US)
- 11.18 209 **Gender differences in the relative effect of sleep disordered breathing and obesity on neurocognitive functioning in adolescents**
S.L. Calhoun, J. Fernandez-Mendoza, J. Gaines, A.N. Vgontzas, D. Liao, E.O. Bixler (Hershey, US)
- 11.30 210 **Habitual sleep variability, not sleep duration, is associated with abdominal obesity in adolescents – Penn State Child Cohort Study (PSCC)**
D. Liao, A. Berg, Y.I. Kawasawa, F. He, S. Elavsky, E.O. Bixler (Hershey, US)
- 11.42 211 **REM sleep and emotional face memory in typically developing children and children with autism**
S. Tessier, A. Lambert, E. Chevrier, P.B. Scherzer, B. Jemel, R. Godbout (Montréal, CA)
- 11.54 212 **The effect of nighttime sleep patterns on sensitivity to reward in healthy adolescents**
S. Reyes, C. Algarin, B. Luna, B. Lozoff, P. Peirano (Santiago, CL; Ann Arbor, Pittsburgh, US)
-

Friday, 19 September 2014

12.30 – 14.00 **Symposium** Top Floor Foyer

ESRS Young Researchers Network

Chair: D. Skene (Guildford, GB)

- 12.30 **213a** **Welcome and opening remarks**
D. Skene (Guildford, GB)
- 12.35 **213b** **Ideas on the purpose and future of the ESRS Young Researcher Network**
E. Sif Arnardottir (Reykjavik, IS)
- 12.40 **Table discussions**
- 12.55 **A representative from each table will present the ideas from the table discussion to the whole group**
- 13.25 **Closing remarks, future actions**

12.30 – 14.00 **Lunch and Poster Viewing** Exhibition

14.00 – 16.00 **Symposium** Lecture Hall A

Sleep changes in aging: causes and consequences

*Chairs: J.F. Duffy (Boston, US)
H.-P. Landolt (Zurich, CH)*

- 214** **Age-related changes in the molecular and cellular mechanisms of sleep homeostasis**
K.-M. Zitting (Boston, US)
- 215** **Brain mechanisms underlying age-related changes in NREM sleep: contributions from fMRI/MRI studies**
J. Carrier (Montreal, CA)
- 216** **Age-related changes in circadian photoreception: consequences for sleep**
C. Gronfier (Bron, FR)
- 217** **Sleep quality and cognitive decline in ageing**
D.-J. Dijk (Surrey, GB)
-

Friday, 19 September 2014

14.00 – 16.00 Symposium

Lecture Hall B

Parkinson's disease and sleep: a multifaceted interaction

Chairs: S. Overeem (Nijmegen, NL)
J. Santamaria (Barcelona, ES)

- 218 **Clinical aspects of sleep dysfunction in Parkinson's disease**
C. Baumann (Zurich, CH)
- 219 **Sleep changes as a prodromal marker of Parkinson's disease**
A. Iranzo (Barcelona, ES)
- 220 **Sleep benefit in Parkinson's disease**
M. van Gilst (Nijmegen, NL)
- 221 **Mechanisms of sleep disturbances in Parkinson's disease**
I. Arnulf (Paris, FR)

14.00 – 16.00 Symposium

Lecture Hall C

OSA in Europe; phenotypes, metabolism, accident risk, and treatment

Chairs: M. Bonsignore (Palermo, IT)
E. Sõõru (Tallinn, EE)

- 222 **OSA – same, same but different?**
L. Grote (Gothenburg, SE)
- 223 **Metabolic effects of OSA**
W. McNicholas (Dublin, IE)
- 224 **Traffic accident risk in European patients with obstructive sleep apnea**
M. Karimi (Gothenburg, SE)
- 225 **OSA treatment outcome in Europe**
J. Verbraecken (Edegem, BE)
-

Cell and molecular biology and genetics

Chairs: S. Archer (Guildford, GB)
S. Montagnese (Padua, IT)

- 14.00 226 **Effects of circadian typology and partial and total sleep deprivation on the human transcriptome**
S.N. Archer, S. Kitamura, N. Santhi, D.-J. Dijk (Guildford, GB)
- 14.12 227 **A role for mGluR5-mediated signaling in regulating neurophysiological markers of sleep homeostasis in humans**
S.C. Holst, K. Hefti, A. Baumer, A. Buck, S.M. Ametamey, M. Scheidegger, R. Dürr, A. Henning, E. Seifritz, H.-P. Landolt (Zurich, CH)
- 14.24 228 **Length polymorphism in the human clock gene *Period3* and diurnal preference, subjective sleepiness and the response to morning light**
M. Turco, L. Caccin, M. Corrias, A. Biscontin, C. De Pittà, B. Middleton, D.J. Skene, R. Costa, S. Montagnese (Padova, IT; Guildford, GB)
- 14.36 229 **Melatonin receptor locus associates with shift work intolerance – genome-wide study and replications**
S. Sulkava, H.M. Ollila, S. Puttonen, M. Härmä, K. Viitasalo, J. Lindström, M. Kivimäki, J. Vahtera, T. Partonen, V. Salomaa, T. Porkka-Heiskanen, T. Paunio (Helsinki, FI)
- 14.48 230 **EEG-vigilance regulation in carriers of bipolar disorder risk alleles**
P. Jawinski, C. Sander, N. Mauche, J. Spada, R. Burkhardt, M. Häntzsch, U. Hegerl, T. Hensch (Leipzig, DE)
- 15.00 231 **Orexin physiologically regulates beta-amyloid and tau metabolism: a cerebrospinal-fluid in vivo study**
C. Liguori, A. Romigi, N.B. Mercuri, F. Izzì, M. Albanese, M.G. Marciani, F. Placidi (Rome, IT)
- 15.12 232 **The protector effect of transgene GDNF on sleep in MPTP mouse model of Parkinson's disease**
A.I. Manolov, V.V. Dolgikh, A.V. Revishchin, G.V. Pavlova, I.M. Zavalko, L.S. Moiseenko, Y.V. Ukraintseva, N.S. Bazhenova, D.R. Galimova, V.B. Dorokhov, V.M. Kovalzon (Moscow, RU)
- 15.24 233 **Microphage migration inhibitory factor -173 G/C promoter polymorphism and serum levels correlate with obstructive sleep apnea**
Y. Singh, R. Guleria, N.K. Vikram, S. Vivakanandhan (New Delhi, IN)
- 15.36 234 **Viral insertion screen implicates the conserved vertebrate gene *dreammist* in larval zebrafish sleep regulation**
I. Barlow, S. Zimmerman, A.F. Schier, J. Rihel (London, GB; Cambridge, US)
- 15.48 235 **Connexin30 knock-out mice display less spontaneous locomotor activity, more sleep pressure and a reduced expression of metabolism-related genes**
X. Liu, V. Eligert, P.J. Magistretti, C. Giaume, J.-M. Petit (Paris, FR; Lausanne, Prilly, CH)

Sleep deprivation

Chairs: C. Schmidt (Basel, CH)
M. Chee (Singapore, SG)

- 14.00 236 **Sleep-loss related decrements in night-time vigilance performance: cerebral correlates and the impact of genetic vulnerability**
M. Maire, C.F. Reichert, V. Gabel, A.U. Viola, K. Scheffler, M. Klarhöfer, W. Strobel, C. Cajochen, C. Schmidt (Basel, CH)
- 14.12 237 **Sleep restriction alters immune functions and metabolism – transcriptomic and metabolomic studies in humans**
V. Aho, H.M. Ollila, M. Ala-Korpela, T. Porkka-Heiskanen (Helsinki, Oulu, FI)
- 14.24 238 **Sleep homeostasis in genetically modified loss-of-function and gain-of-function brain-derived neurotrophic factor (BDNF) mice**
H.-K.M. Wigren, J. Zant, A. Sanders, E. Castren, T. Porkka-Heiskanen (Helsinki, FI)
- 14.36 239 **Sleep homeostasis in vitro**
S. Saberi-Moghadam, C. Mikhail, M. Tafti (Lausanne, CH)
- 14.48 240 **Light irradiance influences sleep homeostasis through melanopsin-based phototransduction**
J. Hubbard, L. Calvel, H. Ikonen, L. Choteau, E. Ruppert, P. Bourgin (Strasbourg, FR)
- 15.00 241 **Effects of COMT inhibitor tolcapone on mood and working memory during sleep deprivation**
A. Valomon, A. Borrello, S.C. Holst, M. Sommerauer, W. Berger, C.R. Baumann, H.-P. Landolt (Zurich, CH)
- 15.12 242 **Sleep loss changes executive brain responses in the wake maintenance zone**
M. Jaspas, C. Meyer, V. Muto, A. Shaffii-LeBourdier, S.L. Chellappa, C. Kussée, G. Vandewalle, F. Collette, B. Middleton, S. Archer, D.-J. Dijk, P. Maquet (Liège, BE; Guilford, GB)
- 15.24 243 **Regional differences in the impact of sleep deprivation on sleep EEG power in early to mid adolescence**
L. Tarokh, M.A. Carskadon, P. Achermann (Zurich, CH; Providence, US)
- 15.36 244 **Neural correlates of sustained attention under sleep deprivation during a constant routine: circadian and homeostatic interaction**
V. Muto, M. Jaspas, C. Meyer, A. Shaffii LeBourdier, C. Kussée, S.L. Chellappa, G. Vandewalle, C. Degueldre, A. Luxen, F. Collette, C. Phillips, B. Middleton, S.N. Archer, D.-J. Dijk, P. Maquet (Liège, BE; Guildford, GB)
- 15.48 245 **Effect of partial sleep deprivation on empathy for pain in an fMRI experiment**
S. Tamm, G. Nilsson, P. D'Onofrio, H. Thuné, J. Schwarz, P. Petrovic, H. Fischer, G. Kecklund, T. Åkerstedt, M. Lekander (Stockholm, SE)
-

Friday, 19 September 2014

16.30 – 17.15 Keynote Lecture **Lecture Hall A**

Chair: *L. Nobili (Milan, IT)*

246 The sleep homeostat and local sleep; implications for sleep function
J. Krueger (Spokane, US)

17.15 – 18.45 Poster Sessions **Poster Exhibition**
(Please refer to pages 73 - 88 for details)

Cell and Molecular Biology and Genetics	P795-P802
Neurobiology	P803-P817
Comparative and Evolutionary Studies	P818-P821
Behaviour	P822-P841
Sleep Deprivation 2	P842-P866
Sleep Disorders - Breathing 3	P867-P907
Sleep Disorders - Hypersomnia	P908-P948
Neurological Disorders and Sleep	P949-P988
Paediatrics	P989-P1035
Sleep and Gender	P1036-P1040

18.30 – 19.30 ANSS President Meeting **Lecture Hall C**

Saturday, 20 September 2014

08.00 – 10.00 Symposium

Lecture Hall B

Consciousness and its boundaries: lessons from sleep

Chairs: L. Nobili (Milan, IT)
E. van Someren (Amsterdam, NL)

- 247 **Functional brain networks changes upon falling asleep**
M. Czeisler (Munich, DE)
- 248 **Cortical mechanism of loss of consciousness: the role of bi-stability**
M. Massimini (Milan, IT)
- 249 **The boundaries of consciousness: lucid dreaming**
M. Czeisler (Munich, DE)
- 250 **The boundaries of consciousness: NREM and REM parasomnias**
I. Arnulf (Paris, FR)

08.00 – 10.00 Symposium

Lecture Hall C

Impact of sleep loss on mood: from animal models to humans

Chairs: V. Fabre (Paris, FR)
A. Steiger (Munich, DE)

- 251 **Impaired sleep patterns and homeostasis in animal models for anxio-depressive disorders**
M. Kimura (Munich, DE)
- 252 **BDNF, sleep and depression**
J. Beck (Basel, CH)
- 253 **Insomnia as a risk factor for depression**
D. Riemann, C. Nissen, K. Spiegelhalder, B. Feige, C. Baglioni (Freiburg, DE)
- 254 **Genes involved in circadian rhythmicity and sleep homeostasis**
T. Paunio (Helsinki, FI)
-

What`s hot in sleep-disordered breathing

Chairs: *W. McNicholas (Dublin, IE)*
L. Grote (Gothenburg, SE)

- 08.00 255 **The accumulation of hypoxemia, a newly developed index, well predicts vascular endothelial dysfunction in patients with sleep disordered breathing**
H. Sawatari, A. Chishaki, M. Nishizaka, T. Tokunou, C. Yoshimura, T. Ohkusa, S.-I. Ando (Fukuoka, JP)
- 08.12 256 **Sleep-disordered breathing in patients with acute ischemic stroke and transient ischemic attack: short-term evolution and effects on vascular/clinical outcome – the SAS CARE 1-study**
T. Horvath, S.R. Ott, C.A. Bernasconi, C. Cereda, M. Manconi, U.M. Fischer, J. Frangi, L. Nobili, S. Györik, P. Young, M. Gugger, L. Petrini, C. Roth, C.L. Bassetti (Bellinzona, Bern, Lugano, CH; Milan, IT; Münster, DE)
- 08.24 257 **Recurrence of sleep apnea after withdrawal of upper airway stimulation – a randomized controlled study**
W. Randerath, J. Verbraecken (Solingen, DE)
- 08.36 258 **Short term outcomes for obstructive sleep apnoea patients treated with hypoglossal nerve stimulation**
M. Barnes, A.L. Collins, K. Smart, C. Worsnop, F. O'Donoghue (Heidelberg, AU)
- 08.48 259 **Effect of upper airway stimulation on improving sleep quality and quality of life in moderate to severe obstructive sleep apnoea**
J. Verbraecken, W. Randerath (Edegem, BE; Solingen, DE)
- 09.00 260 **Poor brain bioenergetics during resting wakefulness are related to neurobehavioural deficits in severe obstructive sleep apnea**
A.L. D'Rozario, D.J. Bartlett, C.D. Rae, K.K. Wong, R.R. Grunstein (Sydney, AU)
- 09.12 261 **Long term effects of compliance with positive airway pressure (PAP) therapy in patients with obesity hypoventilation syndrome (OHS)**
I. Bouloukaki, C. Mermigkis, S. Michelakis, V. Moniaki, N.M. Siafakas, S.E. Schiza (Heraklion, GR)
- 09.24 262 **A sleep apnea related risk of vehicle accident is reduced by CPAP – Swedish traffic accident data acquisition (STRADA) registry**
M. Karimi, J. Hedner, H. Häbel, O. Nermann, L. Grote (Gothenburg, SE)
- 09.36 263 **Effectiveness of two maintenance diets following a very low energy diet to reduce cardiometabolic risk in obese sleep apnea patients: a randomised controlled trial**
E.A. Cayanan, N.S. Marshall, C.M. Hoyos, Y. Djavadkhani, B. Yee, K.K. Wong, R.R. Grunstein (Sydney, AU)
- 09.48 264 **CPAP use improves sexual function in men with OSA and erectile dysfunction (ED): a randomised controlled study**
K. Melehan, C.M. Hoyos, G.S. Hamilton, K.K. Wong, B.J. Yee, R. Mclachlan, P.Y. Liu (Melbourne, Sydney, AU; Los Angeles, US)

From RBD to restless legs

Chairs: R. Manni (Pavia, IT)
R. Riha (Edinburgh, GB)

- 08.00 265 **Data-driven modeling of sleep EEG and EOG reveals stages indicative of pre-Parkinson and Parkinson's disease**
J.A. Christensen, M. Zoetmulder, R. Frandsen, L. Arvestson, S.R. Christensen, H.B. Sørensen, P. Jennum (Copenhagen, Glostrup, DK)
- 08.12 266 **A distinct sleep pattern in the novel parasomnia associated with Ig1on5 antibodies**
C. Gaig, A. Iranzo, I. Vilaseca, C. Embid, L. Sabater, J. Dalmau, F. Graus, J. Santamaria (Barcelona, ES)
- 08.24 267 **Sensitivity and specificity of two screening questionnaires for REM sleep behaviour disorder and relationship with REM sleep without atonia in patients with Parkinson's disease**
M. Figorilli, R. Ferri, B. Pereira, P. Beudin, B. Débilly, P.P. Derost, A. Marques, M. Ulla, N. Vitello, M. Puligheddu, F. Durif, M.L. Fantini (Cagliari, Troina, IT; Clermont-Ferrand, FR)
- 08.36 268 **Electroencephalographic and autonomic alterations in nightmare disorder during pre-and post-REM periods**
P. Simor, K. Horváth, J. Körmendi, P. Ujma, R. Bódizs (Budapest, HU; Oxford, GB)
- 08.48 269 **24-Hr treatment of restless legs syndrome patients with an insufficient response to short-acting dopamine agonists: a comparative study using multiple immobilization tests**
D. Garcia-Borreguero, M. Sweeney, J.J. Granizo (Madrid, ES)
- 09.00 270 **High values of nocturnal blood pressure coexist with high number of PLMS in patients with insomnia**
M. Sieminski, M. Partinen (Gdansk, PL; Helsinki, FI)
- 09.12 271 **Genetic risk loci for restless legs syndrome are not related to multimorbidity**
A. Szentkirályi, H. Völzke, W. Hoffmann, C. Trenkwalder, K. Berger (Greiswald, Kassel, Münster, DE)
- 09.24 272 **Prevalence of sleep bruxism in a general population sample: comparison of symptoms, masseter muscle activity and sound monitoring**
T. Gislason, S. Sigmundsdottir, B. Benediktsdottir, A.K. Olafsdottir, E.S.S. Arnardottir (Reykjavik, IS)
- 09.36 273 **Mortality and social consequences of REM sleep behaviour disorder for patients and their partners. A controlled national study**
P. Jennum, M. Zoetmulder, R. Ibsen, J. Kjellberg (Copenhagen, Farum, Århus, DK)

Saturday, 20 September 2014

10.30 – 11.15 **Keynote Lecture** Lecture Hall B

Chair: *W. McNicholas (Dublin, IE)*

- 274** **From pressure to pill – is there a future for pharmacological treatment in sleep apnea?**
J. Hedner (Gothenburg, SE)
-

11.30 – 13.30 **Symposium** Lecture Hall B

When sleep attacks vigilance

Chairs: *R. Fronczek (Leiden, NL)*
 A. Iranzo (Barcelona, ES)

- 275** **Measurements of vigilance impairment in patients with sleep disorders**
M. van Schie (Leiden, NL)
- 276** **Inter-individual differences in sustained attention resulting from sleep deprivation**
H.P.A. Van Dongen (Spokane, US)
- 277** **A pharmacogenetic perspective on vigilance regulation during sleep deprivation**
H.-P. Landolt (Zurich, CH)
- 278** **Non-visual effects of light on alertness and cognitive performance: measures and inter-individual differences**
C. Cajochen (Basel, CH)
-

11.30 – 13.30 **Symposium** Lecture Hall C

Brain histamine in narcolepsy: neurobiological and therapeutic implications

Chairs: *Y. Dauvilliers (Montpellier, FR)*
 P.-H. Luppi (Lyon, FR)

- 279** **Increase of histaminergic tuberomammillary neurons in narcolepsy**
P.O. Valko, Y.V. Gavrillov, M. Yamamoto, H. Reddy, J. Haybaeck, E. Mignot, C.R. Baumann, T. Scammell (Zurich, CH; St. Petersburg, RU; Boston, Palo Alto, US; Graz, AT)
- 280** **Role of histaminergic neurons in the control of sleep and wakefulness**
J.-S. Lin (Lyon, FR)
- 281** **Pharmacology of histamine receptors: properties of inverse H3-receptor agonists**
J.-C. Schwartz (Paris, FR)
- 282** **Novel therapeutic approach in narcolepsy: clinical trials of an antagonist/inverse agonist of the histamine H3 receptor**
Y. Dauvilliers (Montpellier, FR)
-

Sleep analysis: from animals to humans

Chairs: I. Tobler (Zurich, CH)
T. de Boer (Leiden, NL)

- 11.30 283 **Central and peripheral metabolic changes induced by gamma-hydroxybutyrate**
G. Luca, J. Vienne, A. Vaucher, S. Jimenez, M. Tafti (Lausanne, CH)
- 11.42 284 **Baclofen enhances sleep, improves functional recovery and promotes neuroplasticity after stroke in rats**
A. Hodor, S. Palchykova, F. Baracchi, D. Noain, C.L. Bassetti (Bern, Zürich, CH)
- 11.54 285 **A role for group-I metabotropic glutamate receptors (mGluR1/5) in sleep-wake regulation**
A. Sousek, P. Franken, H.-P. Landolt, M. Tafti (Lausanne, Zurich, CH)
- 12.06 286 **Sexual arousal, a role of histamine and orexin neurons**
Y. Zhao, C. Anaclef, M. Perier, C. Buda, J.-S. Lin (Lyon, FR)
- 12.18 287 **Scoprism: a new algorithm for automatic sleep scoring in mice**
G. Zoccoli, S. Bastianini, C. Berteotti, A. Gabrielli, F. Del Vecchio, R. Amici, C. Alexandre, T.E. Scammell, M. Gazea, M. Kimura, V. Lo Martire, A. Silvani (Bologna, IT; Stockholm, SE; Boston, US; Munich, DE)
- 12.30 288 **EEG slow-wave characteristics in sleep after daily torpor in Djungarian hamsters**
V.V. Vyazovskiy, I. Tobler, T. Deboer (Oxford, GB; Zurich, CH; Leiden, NL)
- 12.42 289 **Characterisation of the development of sleep disturbances in the unpredictable chronic mild stress murine model of major depression**
M. Nolle, G. Stenson, B. Martynhak, K. Wafford, D.-J. Dijk, R. Winsky-Sommerer (Guildford, Windlesham, GB)
- 12.54 290 **Slow wave activity and cerebral blood flow are anti-correlated during sleep**
L. Tüshaus, A. Schläpfer, R. O’Gorman, A. Federspiel, R. Luechinger, P. Staempfli, D. Brandeis, T. Koenig, P. Achermann (Bern, Zurich, CH)
- 13.06 291 **Dynamics of human cortical ensembles are set by circadian system and sleep homeostasis**
S.L. Chellappa, J.Q.M. Ly, G. Gaggioni, S. Papachilleos, C. Borsu, A. Brzozowski, S.N. Archer, M. Rosanova, S. Sarasso, D.-J. Dijk, P. Maquet, M. Massimini, C. Phillips, R.J. Moran, G. Vandewalle (Liège, BE; Guildford, GB; Milan, IT; Roanoke, US)

Clinical and psychiatric aspects of sleep disorders

Chairs: D. Kunz (Berlin, DE)
R. Silvestri (Messina, IT)

- 11.30 296 **Chronotype in adult epilepsy patients: a questionnaire and DLMO determination based study**
R. Manni, R. Cremascoli, R. De Icco, M. Terzaghi (Pavia, IT)
- 11.42 292 **Sleep and psychiatric disorders: a meta-analysis of the last 20 years of research**
C. Baglioni, S. Nanovska, W. Regen, K. Spiegelhalder, B. Feige, C. Nissen, C.F. Reynolds, D. Riemann (Freiburg, DE; Pittsburgh, US)
- 11.54 293 **Implementation of dynamic lighting in a nursing home: impact on agitation**
A. Wahnschaffe, C. Nowozin, S. Haedel, H. Rudolph, A. Rath, M. Muench, D. Kunz (Arnsberg, Berlin, DE)
- 12.06 294 **Sleep-disordered breathing in the acute phase of transient ischemic attack and minor stroke**
F. Pizza, P. Proserpio, G.L. Gigli, L. Fratticci, A. Lanza, M. Puligheddu, F. Cirignotta, M. Terzaghi, G. Della Marca, M. Melis, G. Parati, C. Lombardi, R. Rocchi, F. Provini, E. Bonanni, F. Placidi, A. Ciccone, L. Nobili (Bologna, Cagliari, Mantua, Milan, Pavia, Pisa, Rome, Siena, Udine, IT)
- 12:18 295 **Sleep and gastrointestinal cancer risk in the MCC-Spain case-control study**
K. Papantoniou, E. Guinó, G. Castaño-Vinyals, N. Aragonés, V. Martin Sanchez, I. Gomez Acebo, J.J. Jiménez Moleón, R. Peiro, E. Ardanaz, J. Alguacil, J.M. Altzibar, A. Tardón, M.-D. Chirlaque, M. Kogevinas, V. Moreno (Barcelona, Barcleona, Gipuzkoa, Granada, Huelva, León, Madrid, Murcia, Oviedo, Pamplona, Santander, Valencia, ES)
- 12.30 297 **Insomnia and nightmares and associations with PTSD and depressive symptoms among the survivors from the Norwegian terror 22/7 2011 attack on Utøya**
J. Gronli, O.T. Ousdal, A.M.D. Melinder, S. Pallesen, T. Endestad, A.M. Milde (Bergen, Oslo, NO)
- 12.42 298 **Blocking blue light during mania; markedly increased regularity of sleep and rapid improvement of symptoms: case reports from an ongoing randomized controlled trial**
T.E.G. Henriksen, J. Grønli, O.B. Fasmer, S. Skrede, A. Lund (Bergen, Valen, NO)
- 12.54 299 **Sleep and circadian rhythms in the bipolar phenotype: a comparison of high-risk individuals defined by hypomania or a family history of affective disorders**
K. Wulff, P. Rock, N.F. Zaki, R. D'Sa, Y. Winkler, R.G. Foster, G.M. Goodwin (Cambridge, Oxford, GB; Mansoura, EG)
- 13.06 300 **Association of sleep disorders with psychosocial factors in female population aged 25-64 years in Russia: MONICA-psychosocial epidemiological study**
V. Gafarov, D. Panov, E. Gromova, I. Gagulin, A. Gafarova (Novosibirsk, RU)
- 13.18 301 **Sleep quality in hospitalized medical patients: influence of light, noise, and switch to daylight saving time**
M. Bano, F. Chiaromanni, M. Corrias, M. Turco, M. De Rui, A. Gatta, R. Costa, S. Montagnese (Padova, IT)

Saturday, 20 September 2014

13.30 – 13.45 Closing ceremony

Lecture Hall B

*Chairs: P. Peigneux (Brussels, BE)
E. Sõõru (Tallinn, EE)*

- 13.30 **302** **Farewell address by the president of the ESRS, Philippe Peigneux including announcements of ESRS-Weinmann Young Investigators Mobility Award 2014**
P. Peigneux (Brussels, BE)
- 13.35 **303** **Farewell address by president of local sleep society**
E. Sõõru (Tallinn, EE)
- 13.40 **304** **Outlook to ESRS 2016 by chair of local organising committee Bologna**
R. Amici (Bologna, IT)

Poster Presentations

Wednesday, 17 September 2014

18.30 – 20.00 Pharmacology and biochemistry Poster Exhibition

- P305 Side-effects of benzodiazepines in psychiatric outpatients**
M.M. Dumitru (Roman, RO)
- P306 Off-label use of low-dose quetiapine and mirtazapine for insomnia is growing**
M. Lancel, J. Kamphuis (Assen, NL)
- P307 The longer term effects of caffeine withdrawal**
L.C. Lack, K. Johansson (Adelaide, AU)
- P308 Assessment of tasimelteon efficacy in totally blind individuals with non-24-hour sleep-wake disorder in the set study**
S. Lockley, M. Dressman, C. Xiao, R. Torres, C. Lavedan, L. Licamele, M. Polymeropoulos (Washington, US)
- P309 Assessment of maintenance of effect of tasimelteon in totally blind individuals with non-24-hour sleep-wake disorder – RESET Study**
S. Lockley, M. Dressman, X. Changfu, L. Licamele, M. Polymeropoulos (Washington, US)

18.30 – 20.00 Physiology Poster Exhibition

- P310 First-night effect on heart rate variability and salivary cortisol secretion**
M. Takahara, M. Hasegawa-Ohira, K. Ito, S. Nomura (Fukushima, Hiratsuka, Nagaoka, Otsu, JP)
- P311 Electroacupuncture of Feng-Chi acupoints on epilepsy-induced sleep alterations**
P.-L. Yi, F.-C. Chang (Tainan, Taipei, TW)
- P312 Auditory stimulation evokes slow oscillations and spindle activity**
J. Virkkala, M. Leminen, E. Saure, T. Paajanen, M. Huutilainen, T. Paunio (Helsinki, FI)
- P313 The ABCB-1 genotype influences human sleep**
A. Steiger, M. Kluge, B. Wollweber, A. Yassouridis, M. Uhr (Munich, DE)
- P314 Spatio-temporal dynamics of micro-arousals in human: an intra-cerebral study**
L. Peter-Derex, M. Magnin, H. Bastuji (Lyon, Pierre-Benite, FR)
- P315 The consequences of gestational intermittent hypoxia on new born mice**
J. Truchot, T. Bourgeois, M. Ringot, B. Matrot, J. Gallego, M.P. d'Ortho (Paris, FR)
- P316 Enhancement of nightlong salivary melatonin secretion by a feeble light exposure during sleep**
S. Nomura, Y. Kato (Nagaoka, JP)
- P318 Cortical downstates and breakdown of causality within sleeping brain: an intracerebral study in humans**
A. Pigorini, S. Sarasso, P. Proserpio, C. Szymanski, G. Arnulfo, S. Casarotto, M. Rosanova, M. Mariotti, G. Lo Russo, M.J. Palva, L. Nobili, M. Massimini (Genova, Milano, IT; Berlin, DE; Helsinki, FI)
- P319 Theta wave bursts during rapid-eye-movement sleep in histamine-deficient mice**
G. Zoccoli, S. Bastianini, C. Berteotti, J.-S. Lin, V. Lo Martire, H. Ohtsu, A. Silvani (Bologna, IT; Stockholm, SE; Lyon, FR; Sendai, JP)
- P320 Time structure of physiological hind-limb movements during sleep in rats and mice: toward rodent models of periodic limb movements (PLM) and restless legs syndrome (RLS)**
A. Silvani, F. Baracchi, C. Bassetti, S. Bastianini, C. Berteotti, V. Lo Martire, A. Salvadè, G. Zoccoli, M. Manconi (Bologna, IT; Bern, Lugano, CH; Stockholm, SE)

- P321 Cholinergic basal forebrain structures are not essential for the mediation of the arousing action of glutamate**
Z. Lelkes, T. Porkka-Heiskanen (Szeged, HU; Helsinki, FI)
- P322 The circadian effect of light stimulation on rats' body temperature and heart rate**
J. Gronli, J. Mrdalj, T.E.G. Henriksen,, A. Mattson, A.M. Kinn Roed, S. Pallesen, S. Skrede (Bergen, NO)
- P323 Cardiac autonomic modulation is preserved during sleep in patients with spinal cord injury**
E. Tobaldini, P. Proserpio, K. Sambusida, A. Lanza, T. Redaelli, P. Frigerio, L. Fratticci, V.K. Somers, L. Nobili, N. Montano (Milan, IT; Rochester, US)
- P324 Dawn simulation light: a potential cardiac events protector**
A.U. Viola, V. Gabel, V. Hommes, N. Montano, C. Cajochen (Basel, CH; Drachten, NL; Milan, IT)
- P325 Sleep spindles do not inhibit behavioural and cortical responses to nociceptive stimuli: a surface and intracerebral electrophysiological study**
L. Claude, G. Prados, B. De Blay, C. Perchet, L. Garcia-Larrea, S. Mazza, H. Bastuji (Lyon, FR)
- P326 Exercise is associated with changes in sleep architecture during stress**
H.M. Petersen, G. Kecklund, P. D'Onofrio, T. Åkerstedt (Stockholm, SE)
- P327 EEG biomarker for pain sensitivity**
J.-S. Lee, J.-W. Kim, H.-B. Shin (Seoul, Yangsan, KR; Sydney, AU)
- P328 The structure of the sleep-wakefulness cycle and memory processing in “depressive” and “non-depressive” rats**
M. Gogichadze, M. Nemsadze, M. Datunashvili, T. Basishvili, L. Shanshiashvili, D. Mikeladze, N. Oniani (Tbilisi, GE)
- P329 Modulation of spontaneous cortical synchronization by transcranial alternating current stimulation: effects on resting wake and sleep**
A. D'Atri, E. De Simoni, M. Gorgoni, M. Ferrara, F. Ferlazzo, P.M. Rossini, L. De Gennaro (L'Aquila, Rome, IT)
- P330 Waking-promoting effects of orexin injection in the Raphe Pallidus in the rat**
F. Del Vecchio, R. Amici, M. Cerri, A. Di Cristoforo, T. Hitrec, M. Luppi, E. Perez, G. Zamboni (Bologna, IT)
- P331 Diet-induced obesity rats are hypertensive across the different wake-sleep states**
F. Del Vecchio, A. Al Tzachmani, R. Amici, M. Cerri, A. Di Cristoforo, T. Hitrec, M. Luppi, E. Perez, G. Zamboni (Bologna, IT)
- P332 The interaction of thermoregulatory and sleep systems during sleep onset: a simultaneous cerebral and muscular hemodynamic measurement with near-infrared spectroscopy**
Z. Zhang, M. Laures, G. Hügli, M. Qi, R. Khatami (Barmelweid, CH)
- P333 Genetic inactivation of glutamatergic neurons within the pontine sublaterodorsal tegmental nucleus induces REM sleep behaviour disorder (RBD) in rats**
S. Valencia Garcia, P.A. Libourel, Y. Chérasse, M. Lazarus, P.H. Luppi, P. Fort (Lyon, FR; Tsukuba, JP)
- P334 Modifications of sleep structure induced by cold acclimation in rats**
O. Shylo, O. Ventskovska, G. Babychuk (Kharkov, UA; Helsinki, FI)
- P335 Targeting inactivation of Hcrt receptors in dopaminergic and noradrenergic neurons alters the EEG spectral profile during wakefulness**
S. Li, C. Schrick, P. Franken, M. Tafti, A. Vassalli (Lausanne, CH)
- P336 Successful physical exercise-induced weight loss is modulated by habitual sleep duration in the elderly: results of a pilot study**
M. Goerke, U. Sobieray, A. Becke, S. Cohrs, N.G. Müller (Magdeburg, Rostock, DE)

- P337 Inter-individual differences in the effects of night-time noise exposure on sleep and cognitive performance during daytime**
I. Clark, M. Brink, G. Tinguely, M. Rössli, N. Probst-Hensch, J.-M. Wunderli, R. Pieren, C. Cajochen (Basel, Berne, Dübendorf, CH)
- P338 Slow wave sleep in the chronically fatigued: spectral power distribution patterns in chronic fatigue syndrome and primary insomnia**
O. Mairesse, D. Neu, P. Verbanck, O. Le Bon (Brussels, BE)
- P339 Olfaction and sleep – a rodent EEG experiment**
E. Palomäki (Helsinki, FI)
- P340 Thalamic and neocortical differences in the relationship between delta and sigma time courses of human sleep EEG**
S. Sarasso, A. Pigorini, P. Proserpio, I. Sartori, M. Massimini, L. Nobili (Milan, IT)
- P341 Study of the dynamic information between heart and brain networks during nocturnal sleep**
F. Jurysta, L. Faes, G. Nollo, G. Loas, D. Marinazzo, P. Linkowski (Brussels, Gent, BE; Trento, IT)
- P342 Impaired slow wave sleep downscaling in patients with hypersarhythmia**
S. Fattinger, B. Schmitt, B. Bülsterli Heinzle, H. Critelli, O. Jenni, R. Huber (Zurich, CH)
- P343 The effect of hypnotics on auditory arousal thresholds in older adults**
C.P. Lykiardopoulos, D. Bruck, M. Ball (Melbourne, AU)
- P344 Comparison of the levels of drowsiness obtained via a new photooculography-based drowsiness scale and via a simple variation of the Karolinska Drowsiness Scale (KDS)**
C. François, J. Marchat, P. Latour, J. Wertz, R. Poirrier, J. Verly (Liège, BE)
- P345 Extreme violation of sleep hygiene: the effect of sleeping against the biological clock during a multiday relay event**
A. van Maanen, B. Roest, M. Moen, F. Oort, P. Vergouwen, I. Paul, P. Groenenboom, M. Smits (Amsterdam, Arnhem, Ede, NL)

18.30 – 20.00 Learning, memory and cognition 1

Poster Exhibition

- P346 Daytime sleepiness levels are associated with academic performance and psychological health in UK adolescents**
A. Bakshandeh, T. Arora, S. Taheri (Doha, QA)
- P347 A new face of sleep: the impact of post-learning sleep on recognition memory for face-name associations**
L.F. Maurer, K.J. Elliott, J.M. Ronda, K.-M. Zitting, K.E. Ward, C.A. Czeisler, J.F. Duffy (Boston, US)
- P348 Sleep's effect on motor skills: strong offline gains or a methodological bias?**
S.I.R. Pereira, R.A. Vincenzi, F. Beijamini, F.M. Louzada (Curitiba, BR)
- P349 Facial emotion recognition, neurobehavioral performance, and sleep associated with care at the time of death among shift-working caregivers**
T. Kubo, F. Togo, K. Tsuno, M. Takahashi, Y. Yanagiba, T. Ichimizu, E. Sato, S. Kikuchi, T. Mitani, T. Komatsu (Ibaraki, Kawasaki, Tokyo, Wakayama, JP)
- P350 The effect of dim light at night on brain activity during working memory task**
H.-K. Yoon, H.-J. Lee, S.-G. Kang, L. Kim, C.-H. Cho, E.-I. Lee (Incheon, Seoul, KR)
- P351 Spindles affection by use of negative emotional stimulations**
A. Hekmatmanesh, M. Mikaili, K. Sadeghniaat-Haghighi, S. Seifpour, A. Khorrami (Tehran, IR)
- P352 Sleep does not cause false memories on a story-based test of suggestibility**
E. van Rijn, H. McMurtrie, N. Carter, M. Blagrove (Swansea, GB)

- P353 Emotion regulation and maladaptive beliefs in relation to morningness/eveningness**
B.I. Voinescu, A. Szentagotai (Cluj-Napoca, RO)
- P354 Temperament moderates the association between sleep duration and cognitive performance in children**
M.C.M. Vermeulen, R.G. Astill, J.S. Benjamins, H. Swaab, E.J.W. van Someren, K.B. van der Heijden (Amsterdam, Leiden, NL)
- P355 Integration of explicit and implicit memory systems evolves over sleep**
M. Schönauer, F. Pargent, J. Wörsching, M. Czisch, S. Gais (Munich, Planegg-Martinsried, Tübingen, DE)
- P356 Sleep accelerates learning-related changes in brain activity**
L. Himmer, M. Schönauer, D. Heib, M. Schabus, S. Gais (Munich, DE; Salzburg, AT)
- P357 Gender difference in sleep structure and cognitive function in the elderly**
J. Jeong, C.S. Lee, T. Kim, S.Y. Youn, I.-Y. Yoon (Gyeonggi-do, KR)
- P358 Sleep deprivation affects working memory in low but not in high complexity for the N-Back test**
G. Teran, A. Ruiz, R. Mercadillo, R. Gonzalez, R. Tarrago, J. Velazquez (México, MX)
- P359 Cueing emotional memories during slow-wave sleep changes subjective arousal ratings**
M.-E. Tsimpanouli, R. Elliott, I. Anderson, P.A. Lewis (Manchester, GB)
- P360 Sleep and recognition memory: comparing face and scene as emotional stimuli**
N. Kashyap (Guwahati, IN)
- P361 Does bright light interfere with fear learning?**
C. Nowozin, A. Wahnschaffe, D. Fay, O. Pollatos, D. Kunz (Berlin, Potsdam, DE)
- P362 Sound asleep: processing and retention of slow oscillation phase-targeted stimuli**
L. Talamini, I. Korjoukov, M. de Boer, R. Cox (Amsterdam, NL; London, GB)
- P363 Impaired consolidation of emotional memories during sleep in older adults**
C. Harand, F. Doidy, F. Bertran, F. Guénolé, P. Clochon, B. Desgranges, F. Eustache, G. Rauchs (Caen, FR)
- P364 Neurobehavioral performance during an intensive spatial navigation task and local use-dependent changes in the wake electroencephalogram**
A. Quercia, F. Zappasodi, G. Committeri, G. Tamburro, V. Pizzella, M. Valentini, M. Ferrara (Chieti, L'Aquila, IT)

18.30 – 20.00 Instrumentation and methodology (Basic Sleep Science) Poster Exhibition

- P365 Online wireless sleep analysis for auditory sleep stimulation**
J. Virkkala, R. Velin, M. Leminen, E. Saure, M. Huotilainen, T. Paunio (Helsinki, FI)
- P366 Automatic segmentation of REM sleep into three substages**
M. Magrini, A. Virgillito, U. Barcaro, L. Bonfiglio, G. Pieri, M.C. Carboncini (Pisa, IT)
- P367 Translation, cross-cultural adaptation and psychometric properties of the Jenkins Sleep Scale in a sample of Portuguese shift workers**
C. Reis, C. Mestre, M. Tecedeiro, T. Paiva (Lisbon, PT)
- P368 Automated sleep staging classification using a non-contact biomotion sensor**
A. Zaffaroni, L. Gahan, L. Collins, E. O'Hare, C. Heneghan, C. Garcia, I. Fietze, T. Penzel (Dublin, IE; San Diego, US; Berlin, DE)
- P369 Development of a user-friendly platform for real-time automated scoring and analysis of polysomnography data**
G. Allocca, I.T. Hosken, D. Martelli, D.R. Freestone, L.A. Johnston, A.L. Gundlach (Parkville, AU)

- P370 Correlation of EEG slowing to cardiopulmonary coupling during sleep in chronic opioid users**
J.W. Kim, R. Grunstein, D. Wang (Glebe, AU)
- P371 A novel sleep spindle detection method to account for intra- and inter-individual differences in spindle characteristics**
L.B. Ray, S. Sockeel, A. Bore, J. Carrier, J. Doyon, S.M. Fogel (London, Montreal, CA)
- P372 Inter- and intraindividual variability of the pupillary unrest index (PUI)**
T. Eggert, H. Dorn, C. Sauter, A. Peter, M.-L. Hansen, H. Danker-Hopfe (Berlin, DE)
- P373 Quantum neural networks for predicting lane deviations from steering wheel angle**
A.A.V. Holmström, P.M. Forsman, E. Haeggström (Helsinki, FI)
- P374 Effect of CPAP in erythrocytosis and sleep apnea hypopnea syndrome**
C. Jurkojc, E. Mañas, P. Arrieta, C. Gotera, D. Barrios, P. Lazo, R. Mirambeaux, A. Pedrera (Madrid, ES)
- P375 Automatic biorhythms from actigraphy data**
M. Gonzalez, J.Q.M. Ly, G. Gaggioni, C. Meyer, V. Muto, M. Jaspar, G. Vandewalle, C. Phillips, P. Maquet, S.L. Chellappa (Liège, BE)
- P376 Nightmare´s effects on daily functioning – the nightmare effects questionnaire (NEQ)**
A.A. Schlarb, M. Zschoche, M. Schredl (Bielefeld, Mannheim, DE)
- P377 Confirmatory factor analysis of sleep model's questionnaires**
T. Rebelo-Pinto, J.C. Pinto, H. Rebelo-Pinto, F. Brito, T. Paiva (Lisbon, PT)
- P378 Pilot study: blood pressure response to withdrawal of positive airway pressure treatment in patients with hypertension and obstructive sleep apnea**
K.A. Olafsdottir, S. Gudmundsdottir, A. Valgardsdottir, T. Gislason, B. Benediktsdottir, E.S. Arnardottir (Reykjavik, IS)
- P379 A critical analysis of electronically equipped beds used in sleep medicine**
R. Kala (Tallinn, EE)
- P380 Beneficial effect of morning light after one night of sleep deprivation**
A. Viola, J. Hubbard, H. Comtet, I. Hubbard, E. Ruppert, P. Bourgin (Strasbourg, FR)

18.30 – 20.00 Sleep disorders – Breathing 1

Poster Exhibition

- P381 Polysomnographic evaluation of sleep disordered breathing after lung transplantation**
D. Testelmans, C. Belge, R. Vos, J. Yserbyt, L. Dupont, G. Verleden, B. Buyse (Leuven, BE)
- P382 Continuous positive airway pressure (CPAP) impact on abdominal fat redistribution in obstructive sleep apnea patients**
R. Català, R. Ferré, A. Cabré, S. Sangenís, D. Ibarretxe, S. Hernández-Flix, L. Masana (Reus, ES)
- P383 Influence of nasal mask choice for continuous positive airway pressure (CPAP) therapy in patients with obstructive sleep apnoea (OSA)**
L. Morin, P.-C. Neuzeret (Saint-Priest Cedex, FR)
- P384 Hyoid bone in obstructive sleep apnea syndrome patients according the craniofacial growth**
R. Ecija, J. Jareno, A. Coca, I. Sierra, J. Aranda, F. Villegas, S. Campos, M. Castro, A. Rodero, C. Gutierrez (Madrid, ES)
- P385 In moderate to severe obstructive sleep apnea, sleepy patients do have higher apnea-hypopnea index than nonsleepy patients**
A. Mineiro, P. Cravo, D. Pombo, C. Santos, D. Virella, M. Alves, M.J.M. Gomes, J. Cardoso (Lisbon, PT)

- P386 Relationship between smoking and obstructive sleep apnoea and hypopnoea syndrome**
Z. Quan, J. Liu, Y. Xie, Z. Lei, B. Liang, X. Mo (Nanning, CN)
- P387 Continuous positive airway pressure therapy reduces mortality in Chinese patients with obstructive sleep apnea**
X. Yuan, J. Fang, L. Wang, X. Li, J. Wang, L. Yao, X. Zhan, H. Wu, J. Pinto, Y. Wei (Beijing, CN; Chicago, US)
- P388 Uncontrolled hypertension and obstructive sleep apnoea hypopnoea syndrome among adult snorers in South China**
J. Liu, F. Pan, G. Hu, Y. Wu, X. Mo, Y. Xie, D. Liang, Z. Lei, B. Liang (Guangzhou, Nanning, CN)
- P389 Rates of CPAP mask initial acceptance and switching**
P. Vitikainen, P. Maasilta, A. Bachour (Helsinki, FI)
- P390 Influence of sleep apnea on type of myocardial infarction. The Sleep Apnea in Post Acute Myocardial Infarction Patients (SAPAMI) study**
O. Ludka, R. Stepanova, L. Galkova, B. Fischerova, T. Kara, J. Spinar (Brno, CZ)
- P391 Relationship between neck circumference and polysomnography parameters in obstructive sleep apnea syndrome**
J.C. García Reyes, A. Rodríguez-Gonzalez, J.E. Solís, A. Labra, F. Sánchez-Narváez, R. Haro-Valencia, V. Valdés-Pineda, A. Castellanos (México, MX)
- P392 Correlation between supine and sitting position, in the physical and endoscopic evaluation of the airway in patients with obstructive sleep apnea suspicion**
J.C. García Reyes, A. Labra, R. Haro-Valencia, F. Sánchez-Narváez, V. Valdés-Pineda, A. Rodríguez-Gonzalez, A. Castellanos (México, MX)
- P393 Body Mass Index as a prognosis factor of collapse in the upper airway in adults with obstructive sleep apnea syndrome**
A. Rodríguez, A. Labra, J.-C. García-Reyes, V. Valdez-Pineda, R. Haro-Valencia, F. Sánchez-Narváez, A.-D. Huerta-Delgado, J.-E. Solís-Rodríguez (México, MX)
- P394 Automated scoring system for the diagnosis of obstructive sleep apnea in level 2 portable monitoring device Embletta X-100**
H.J. Kim (Suwon, KR)
- P396 APAP-adherence depends on device technology**
H. Hein, T. Netzel, M. Schnell, Y. Hein (Hamburg, Reinbek, DE)
- P397 Continuous positive airway pressure treatment reduces mortality in elderly patients with moderate to severe sleep apnea : a cohort report**
O. Qiong (Guangzhou, CN)
- P398 Prevalence of excessive sleepiness and insomnia in patients with obstructive sleep apnea syndrome**
I.W. Saxvig, S. Lehmann, S. Gulati, H. Aurlien, B. Bjorvatn (Bergen, NO)
- P399 Effects of a very low energy diet on cardiometabolic markers in mechanically treated and untreated obese obstructive sleep apnea patients: a stratified open-label cohort study**
E.A. Cayanan, N.S. Marshall, C.M. Hoyos, Y. Djavadkhani, B. Yee, K.K. Wong, R.R. Grunstein (Sydney, AU)
- P400 Randomised controlled trial of mandibular advancement devices for obstructive sleep apnoea (TOMADO): one year follow-up**
T.G. Quinnell, A.L. Clutterbuck-James, M. Bennett, J. Jordan, R. Chadwick, M.G. Davies, N. Oscroft, I.E. Smith, C.L. East, M.A. Pittman, M. Cameron, M.J. Morrell, M. Glover, J.A. Fox-Rushby, L.D. Sharples (Cambridge, Leeds, London, Uxbridge, GB)
- P401 On the way to a personalised self-management program in continuous positive airway pressure therapy**
M.A. Michalzyk, T. Künne, J. Kuhl (Osnabrück, DE)

- P402 Obstructive sleep apnea and erectile dysfunction: new possibilities of sleep medicine**
O. Berdina, I. Madaeva, L. Kolesnikova, V. Dolgikh (Irkutsk, RU)
- P403 Contribution of mandibular morphology to residual obstructive sleep apnea after adenotonsillectomy in children: a preliminary study**
K. Maeda, S. Tsuiki, S. Nakata, K. Suzuki, E. Itoh, Y. Inoue (Aichi, Tokyo, JP)
- P404 International scientific communications in the field of the diagnosis of obstructive sleep apnea**
M.P. Milkov, L. Matev, P. Nedev (Varna, BG)
- P405 Institutionalization of research on the applications of oral appliances in the treatment of obstructive sleep apnea**
M. Milkov, L. Matev, P. Nedev (Varna, BG)
- P406 Two new parameters: obstruction length and height in predicting outcome of upper airway surgery in obstructive sleep apnea patients**
J. Ye, P. Zhang, C. Pan, N. Sun, J. Li, D. Kang (Beijing, CN)
- P407 Achyrocline satureioides (LAM) D.C. would improve sleep quality and oxidative stress in patients with obstructive sleep apnea syndrome: a pilot study**
M. Pedemonte, F. Rivera, M. Díaz, M. Testa, E. Behar, A. Goliger, F. Dajas, R. Velluti (Montevideo, Punta del Este, UY)
- P408 Comparison of portable monitoring devices and polysomnography for the diagnosis of obstructive sleep apnea syndrome**
T. Yano, Y. Aoshima, K. Tanaka, T. Ogasawara, N. Kasamatsu (Hamamatsu, JP)
- P409 Factors affecting the intention and decision to be treated for obstructive sleep apnea disorder**
O. Tzischinsky, S. Shahrabani, G. Givati, Y. Dagan (Haifa, Ramat Gan, Yezreel Valley, IL)
- P410 Contributing factors to obesity as predictors for obstructive sleep apnea syndrome**
S. Mihaicuta, I.A. Toth, S. Paralescu, S. Frent, C. Ardelean (Timisoara, RO)
- P411 Does sleep disordered breathing in women promote heart failure? A population based cohort study**
M. Ljunggren, L. Byberg, J. Theorell-Haglöw, B. Lindahl, K. Michaëlsson, E. Lindberg (Uppsala, SE)
- P412 Quantitative analysis of mandible movements during obstructive sleep apnoeas**
R. Poirrier, B. Chakar, S. Raskin, A. Bruwier, Y. Gilon, M. Limme, A.-L. Poirrier (Liège, BE)
- P413 Reduction of mandibular movements associated to obstructive sleep apnea after adenotonsillectomy in children**
J.B. Martinot, V. Cuthbert, F. Senny, S. Denison, H. Guénard, J.L. Pepin (Liege, Namur, BE; Bordeaux, Grenoble, FR)
- P414 The impact of weight reduction in the prevention of the progression of obstructive sleep apnea – explanatory analysis of a 4-year observational follow-up trial**
H. Tuomilehto, J. Seppä (Kuopio, FI)
- P415 Impairments of frontal lobe-related cognitive functions in sleep related breathing disorder in the elderly**
C.S. Lee, T. Kim, S.D. Lee, S.-H. Kang, K.W. Kim, I.-Y. Yoon (Seongnam-si, KR)
- P416 Sleep-disordered breathing after acute ischemic stroke and transient ischemic attack: long-term clinical/vascular outcome and effect of a randomized CPAP treatment – the SAS-CARE 2-study**
T. Horvath, S.R. Ott, C.A. Bernasconi, C. Cereda, M. Manconi, U.M. Fischer, S.A. Schroth, L. Nobili, P. Young, J. Frangi, S. Györik, M. Gugger, L. Petrini, C. Roth, C.L. Bassetti (Bellinzona, Bern, Lugano, CH; Milan, IT; Münster, DE)

- P417 High risk sleep apnea on the Berlin Questionnaire is associated with hypertension in South Africans of Black Ancestry**
K. Scheuermaier, R. Naran, A. Woodiwiss, G. Norton (Johannesburg, ZA)
- P418 Peculiarities of arterial stiffness in middle-aged male patients with arterial hypertension, obesity and severe sleep apnea**
E. Elfimova, A. Aksenova, P. Galitsin, A. Zairova, A. Rvacheva, K. Zykov, A. Litvin, A. Rogoza, I. Chazova (Moscow, RU)
- P419 Impaired autoregulation with increasing apnea-hypopnea index – a case-control study**
L. Ponsaing, U. Lindberg, E. Rostrup, H.K. Iversen, K. Krabbe, H.B.W. Larsson, P. Jennum (Glostrup, DK)
- P420 The prevalence of high risk of obstructive sleep apnea among Iranian commercial drivers**
E. Nazemi, K. Sadegh Niyat, O. Aminian (Tehran, IR)
- P421 Polysomnographic predictors of mortality in stroke patients**
L.B. Ponsaing, H.K. Iversen, P. Jennum (Glostrup, DK)
- P422 Nocturnal blood pressure fluctuations – a risk factor for heart attack and stroke during sleep**
G. Kuchler, H. Hein, I. Fietze (Berlin, Randersacker, Reinbek, DE)

18.30 – 20.00 Sleep disorders – Circadian rhythms Poster Exhibition

- P423 Pattern of highway crash accidents in Tehran, Iran: it relates with circadian rhythm of sleepiness**
K. Sadeghniaat-Haghighi, M. Moradina, O. Aminian, Z. Yazdi, A. Esmaili (Qazvin, Tehran, IR)
- P424 Clock pathway deregulation and clonogenic properties of human skin & hair follicle keratinocytes**
N. Deshayes, G. Genty, M. Paris (Aulnay-sous-Bois, FR)
- P425 Sleep patterns and predictors of daytime sleepiness in Korean adolescents students**
S.-H. Kang, I.-Y. Yoon, S.D. Lee, C.S. Lee, T. Kim (Gyeonggi-do, Seoul, KR)
- P426 Sleepiness and behavioural circadian rhythm period lengths of delayed sleep phase disorder patients and controls**
G. Micic, N. Lovato, M. Gradisar, S.A. Ferguson, H.J. Burgess, L.C. Lack (Adelaide, AU; Chicago, US)
- P427 Nocturnal melatonin profiles in Delayed Sleep Phase Disorder compared with normal sleepers**
G. Micic, N. Lovato, M. Gradisar, S.A. Ferguson, H.J. Burgess, D.J. Kennaway, L.C. Lack (Adelaide, AU; Chicago, US)
- P428 Predictors of core temperature and melatonin circadian phase timings**
G. Micic, N. Lovato, M. Gradisar, S.A. Ferguson, H.J. Burgess, L.C. Lack (Adelaide, AU; Chicago, US)
- P429 Light therapy in a sighted man with a non-24-hour sleep-wake disorder (N24SWD): a case study**
C. Garbazza, V. Bromundt, U. Lang, D.P. Brunner, C. Cajochen (Basel, Zollikon, CH)
- P430 Altered light sensitivity in a mouse model for Smith-Magenis syndrome**
S. Diessler, P. Franken (Lausanne, CH)
- P431 The impact of bilateral anophthalmia on sleep and mood: a case series study**
I. Alexander, R. Morjaria, O. Kousha, R. Purbrick, H. Bridge, K. Watkins, B. Leatherbarrow, G. Black, R. Foster, S. Downes, K. Wulff (Manchester, Oxford, GB)

- P432** **Characteristics of the selective and unique binding profile of tasimelteon, a circadian regulator of the master body clock**
C. Lavedan, M. Forsberg (Washington, US)
- P433** **A multicenter open-label safety study of tasimelteon for the treatment of non-24-hour sleep-wake disorder in blind individuals with no light perception**
M.A. Quera-Salva, M. Dressman, C. Perry, M.-F. Vecchierini, P. Ogrizek, C. Lavedan, D. Léger (Garches, Paris, FR; Washington, US)
- P434** **Nocturnal shift work is associated with reduced stage N3 and REM sleep in adults**
F.S. Ruiz, I.Z. Zimberg, M.V. Santos, U.A. Andrade, L.R. Bittencourt, S. Tufik, M.T. Mello (São Paulo, BR)
- P435** **Explore the impact of circadian rhythm patterns for nurses' sleep under the influence of the shift system**
C.-P. Kuo, W.-C. Liao, S.-C. Chung (Taichung, Taoyuan, TW)
- P436** **Sleeping disorders among Dutch visually impaired persons: an investigating study**
K.J. van Rijn, M.V. Joosse, G.A. Kerkhof (The Hague, NL)
- P437** **A placebo controlled study of the effects of blue light therapy on sleep and performance in late chronotypes**
M. Geerdink, D.G.M. Beersma, V. Hommes, M.C.M. Gordijn (Drachten, Groningen, NL)
- P438** **Delayed sleep phase syndrome**
P.E. Hesla (Oslo, NO)
- P439** **Job strain and vagal recovery during sleep in female shift workers**
K. Karhula, A. Henelius, M. Härmä, M. Sallinen, H. Lindholm, M. Kivimäki, J. Vahtera, S. Puttonen (Helsinki, Turku, FI)

18.30 – 20.00 Sleep disorders – Insomnia 1

Poster Exhibition

- P440** **Preliminary evidence for quality of life improvements after acceptance and commitment therapy in primary insomnia**
E. Hertenstein, N. Thiel, M. Lueking, A.K. Kuelz, E. Schramm, C. Baglioni, K. Spiegelhalder, D. Riemann, C. Nissen (Freiburg, DE)
- P441** **The mediating role of anxiety and depression on the association between perfectionism, sleep-disturbances, and insomnia severity**
U. Akram, J.G. Ellis, A. Myachykov, N.L. Barclay (Newcastle upon Tyne, GB)
- P442** **Sublingual flumazenil for the residual effects of hypnotics: zolpidem and brotizolam**
N. Katz, G. Pillar, E. Peled, N. Peled (Haifa, Hod Hasharon, Holon, IL)
- P443** **Don't worry, sleep well**
C. Soares, A. Allen, M. Ferreira, M.H. Azevedo (Aveiro, Coimbra, PT)
- P444** **Factors associated with self reported insomnia and sleep loss over worry in young adults**
C. Faria, M. Ferreira, A. Allen, M.H. Azevedo (Aveiro, Coimbra, PT)
- P445** **Correlates of self reported insomnia in young adults**
S. Rego, A. Allen, M.H. Azevedo, M. Ferreira (Aveiro, Coimbra, PT)
- P446** **Greater general repetitive negative thinking directly predicts more severe insomnia in males: in females it is all about depression**
L.B. Bertolino, M. Olathe, S. Tan, E.R. Watkins, R.S. Bucks (Crawley, AU; Exeter, GB)
- P447** **The effectiveness of mindfulness meditation with cognitive behavioral therapy in patients with chronic insomnia**
S.C. Hong, T.W. Kim, S.Y. Kim (Seoul, Suwon, KR)

- P448 Clinical characteristics of patients with primary insomnia in Korea: comparing the misperception group and non-misperception group**
Y.W. Cho, M.L. Song, Y.S. Lee, H.J. Moon (Daegu, KR)
- P449 Perfectionistic tendencies in insomnia patients' behaviour during psychometric testing**
K. Spiegelhalder, E. Hertenstein, P. Weil, S.D. Kyle, C. Baglioni, C. Nissen, B. Feige, D. Riemann, W. Regen (Freiburg, DE; Manchester, GB)
- P450 Slow dissolving of emotional distress contributes to hyperarousal**
P.F. Wassing, J.S. Benjamins, K. Dekker, S. Moens, Y.D. Van Der Werf, L.M. Talamini, M.P. Walker, F. Schalkwijk, E.J.W. Van Someren (Amsterdam, NL; Berkeley, US)
- P451 Blood lead levels and sleep quality in workers of lead- zinc companies**
M. Yoosefian, K.S. Haghighi, O. Aminian (Tehran, IR)
- P452 The role of emotion dysregulation in insomnia: longitudinal findings from a large community sample**
M. Jansson-Fröjmark, A. Norell-Clarke, S. Linton (Stockholm, Örebro, SE)
- P455 Prevalence, associated factors and management of insomnia in prison populations: an integrated review**
L.H. Dewa, S.D. Kyle, L. Hassan, J. Shaw, J. Senior (Manchester, GB)
- P456 Sleeping difficulties remain chronic over nine years in young Australian women**
M.L. Jackson, N.T. Diamond, E.M. Sztendur, J.E. Byles, D. Bruck (Melbourne, Newcastle, AU)
- P457 Beliefs about the 'shape' and continuity of healthy sleep as a function of age**
D. Bruck, C.L. Dolan, L.C. Lack (Adelaide, Melbourne, AU)
- P458 Correlates of improvements in daytime impairments during cognitive behavioural therapy for primary insomnia**
A. Sweetman, L. Lack, N. Lovato, H. Wright, D. Kennaway (Adelaide, AU)
- P459 Structural and functional changes in the mesolimbic system in primary insomnia patients: an fMRI and DTI study**
Y. Motomura, K. Oba, Y. Terasawa, K. Nozaki, N. Ayabe, Y. Moriguchi, Y. Kamei, S. Higuchi, K. Mishima (Fukuoka, Kodaira, JP)
- P460 Does mindfulness have an impact on hyperarousal in participants with insomnia complaints?**
F. Jermann, K. Cervena, P. Cordera, C. Carlei, B. Weber, J.-M. Aubry, G. Bondolfi (Geneva, CH)
- P461 Experiences of insomnia patients from specialist clinics compared to a community sample: how different are they?**
J.M.Y. Cheung, D.J. Bartlett, T. Laba, C.L. Armour, B. Saini (Sydney, AU)
- P462 Acute and chronic effects of electroacupuncture on daytime vigilance in primary insomnia: placebo-controlled EEG topography/tomography and psychometric studies**
B. Saletu, A. Meng, P. Anderer, E. Doll, S. Rosales-Rodriguez, M. Bijak, D. Stockenhuber, H. Nissel, G.M. Saletu-Zyhlarz (Vienna, AT)
- P463 Acute and chronic effects of electroacupuncture in primary insomnia: placebo-controlled clinical and polysomnographic studies**
G.M. Saletu-Zyhlarz, A. Meng, P. Anderer, E. Doll, S. Rosales-Rodriguez, M. Bijak, D. Stockenhuber, H. Nissel, B. Saletu (Vienna, AT)
- P464 Cognitive training improves sleep quality and cognitive function among older adults with insomnia**
I. Haimov, E. Shatil (Emek Yezreel, IL)
- P465 Quality of sleep and quality of life in patients with primary insomnia treated with a prolonged-released melatonin**
R.E. Poirrier, N. Witters, L. Cambron, J. Imschoot (Brussels, Liège, BE)

- P466 Is a poor night of sleep followed by a bad day?**
L.C. Lack, R. Smith, N. Lovato, H.R. Wright (Adelaide, AU)
- P467 Factors affecting therapeutic responsiveness to eszopiclone in adult patients with chronic insomnia: a post hoc analysis of a double-blind phase III study in Japan**
Y. Inoue (Tokyo, JP)
- P468 Work time control and sleep disturbances**
P. Salo, L. Ala-Mursula, N.H. Rod, P. Tucker, J. Pentti, M. Kivimäki, J. Vahtera (Oulu, Turku, FI; Copenhagen, DK; Stockholm, SE; London, GB)
- P469 Maladaptive beliefs and sleep quality in adults with insomnia symptoms**
B.I. Voinescu, A. Szentagotai (Cluj-Napoca, RO)
- P470 Transcranial magnetic stimulation as therapeutic option in patients with diagnosis of idiopathic insomnia**
D.Y. Arana Lechuga, O. Sanchez Escandon, M.A. Collado, P. Shkurovich Bialik, J. Velazquez, G. Teran Pérez, A. Ruiz Chow (México, MX)
- P471 The effect of support on internet-delivered treatment for insomnia: does baseline depression severity matter?**
J. Lancee, M. Sorbi, M. Eisma, A. van Straten, J. van den Bout (Amsterdam, Utrecht, NL)
- P472 Standardization of laboratory diagnostic of insomnia**
N. Zybina, O. Tikhomirova, M. Frolova, E. Butyrina (Saint-Petersburg, RU)

18.30 – 20.00 Sleep disorders – Parasomnias

Poster Exhibition

- P473 Expert evidence on forensic parasomnias: a qualitative study of expert witnesses**
J.M. Rumbold (Birmingham, GB)
- P474 Spectral analysis of polysomnography in narcolepsy**
K. Lee, M.-D. Kim, K.-J. Min, B.-H. Yoon, S.-Y. Lee, D.-I. Jon, Y.-J. Kwon, W.-M. Bahk, S.-K. Chung (Anyang, Cheonan, Gyeongju, Iksan, Jeju, Jeonju, Naju, Seoul, KR)
- P475 Mirtazapine-induced sleep related eating behavior**
K.-J. Min, W.-M. Bahk, J.-H. Jeong, B.-H. Yoon, S.-Y. Lee, D.-I. Jon, Y.-J. Kwon, K.H. Lee, S.-K. Chung, M.-D. Kim (Anyang, Cheonan, Gyeongju, Iksan, Jeju, Jeonju, Naju, Seoul, Suwon, KR)
- P476 Agomelatine in idiopathic REM sleep behavior disorder**
M. Zucconi, L. Ferini-Strambi, S. Marelli, A. Galbiati, A. Oldani, R. Ferri (Milan, Troina, IT)
- P477 Objective daytime sleepiness in somnambulism/sleep terrors: a case-control study**
R. Lopez, I. Jausseint, B. Carlander, Y. Dauvilliers (Montpellier, FR)
- P478 REM sleep behavior disorder and sleep-related epilepsy**
T. Nozawa (Minato, JP)
- P479 Clinical manifestations and polysomnographic findings in patients with REM sleep behavior disorder**
M. Aguilar Andújar, M.D. Guerrero Sánchez, C. Menéndez de León, C. Méndez Lucena, J.M. López Domínguez (Seville, ES)
- P480 New data on psycho-behavioral and polysomnographic profiles of patients affected by night eating syndrome**
P. Vinai, R. Ferri, M. Anelli, L. Ferini-Strambi, M. Zucconi, A. Oldani, M. Manconi (Magliano Alpi, Milan, Troina, IT; Lugano, CH)
- P481 Effects of clonazepam and pramipexole on REM sleep behavior disorder**
M. Kohsaka, N. Fukuda, Y. Syoji, T. Ishikane (Sapporo, JP)
- P482 Investigating the role of cortical “off periods” on the EEG theta power with a Jansen and Ritt's model**
F. Le Bourdieu, A. Shaffii - Le Bourdieu, V. Muto, M. Jaspard, P. Maquet (Liège, BE)

- P483 Obstructive sleep apnea in patients with fibromyalgia – report from a fibromyalgia clinic**
G. Welsh, A. Vincent, L. Loehrer, S. Cha, D. Wahner-Roedler (Rochester, US)
- P484 Restless legs syndrome (RLS): another intestine related disorder! Increased prevalence of RS in Crohn's disease**
M. Smits, P. Hoek, N.D. Roos, L. Rijsman, B. Witteman (Ede, The Hague, Wageningen, NL)
- P485 Sleep disordered breathing in coronary heart disease patients with mild and moderate heart failure**
G. Varoneckas, A. Podlipskyte, A. Alonderis, A. Martinkenas (Palanga, LT)
- P486 Excessive daytime sleepiness in obstructive sleep apnea and upper airways resistance syndrom – disturbed sleep microarchitecture by CAP-subtypes A2/A3 as a result of extraesophageal reflux**
W. Böhning, E. Briese (Bad Lippspringe, DE)
- P487 Sleep-wake abnormalities in patients with cirrhosis**
S. Montagnese, M. De Rui, M. Corrias, M. Turco, P. Amodio, C. De Pittà, R. Costa, B. Middleton, D.J. Skene (Padova, IT; Guildford, GB)
- P488 Sleep disturbances compared to traditional risk factors for incident diabetes: systematic review and meta-analysis**
S. Reutrakul, T. Anothaisintawee, A. Thakkinstian, E. Van Cauter (Bangkok, TH; Chicago, US)
- P489 Sudden cardiac death in patients with systolic heart failure, Cheyne-Stokes breathing and amiodarone-induced thyrotoxicosis: a case report**
O.V. Lyshova (Voronezh, RU)
- P490 Increase apnea-hypopnea index and lengthening of QTc interval closely correlated in newly diagnosed untreated patients with obstructive sleep apnea and arterial hypertension**
N.V. Borodin, O.V. Lyshova (Voronezh, RU)
- P491 Predictors of excessive daytime somnolence**
A. Corlateanu, V. Sircu, S. Pylchenko (Chisinau, MD)
- P492 The role of effective CPAP therapy in patients with idiopathic pulmonary fibrosis and obstructive sleep apnoea**
C. Mermigkis, I. Bouloukaki, G. Papadogiannis, K. Antoniou, D. Mermigkis, I. Giannarakis, G. Varouchakis, N.M. Sifakas, S.E. Schiza (Heraklion, GR)
- P493 Obstructive sleep apnoea syndrome and comorbidities**
A. Corlateanu, V. Sircu, R. Cobiletchi (Chisinau, MD)
- P494 Sleep disturbances and risk of myocardial infarction among men aged 25-64 years (WHO MONICA -psychosocial)**
V. Gafarov, E. Gromova, I. Gagulin, A. Gafarova (Novosibirsk, RU)
- P495 The optimal dose of midazolam for sleep in critically ill patients: pilot study**
S.J. Kim (Seongnam-si, KR)
- P496 The effect of age, gender, BMI and hypertension on the oxygen desaturation index**
E. Sõõru, K. Innos, R. Sepper (Tallinn, EE)
- P497 Lifestyle considerations and type 2 diabetes risk: sleep quality and habitual caffeine consumption**
E. Urry, G.A. Spinaz, W. Langhans, D. Erkhova, R. Dürr, H.-P. Landolt (Schwerzenbach, Zurich, CH)

- P499 Impact of nasal obstruction on sleep quality – a community based study of women**
C. Bengtsson, L. Jonsson, M. Holmström, M. Svensson, J. Theorell-Haglöw, E. Lindberg (Stockholm, Uppsala, SE)
- P500 An association between intestinal microflora changes and sleep efficiency in chronic fatigue syndrome: a pilot open-label trial of the antibiotic erythromycin**
M.L. Jackson, H. Butt, M. Ball, D. Lewis, D. Bruck (Donvale, Melbourne, AU)
- P501 Independent associations of low 25 hydroxy vitamin D and high parathyroid hormonal levels with OSA and NAFLD in Asian Indians residing in north India**
S.P. Bhatt, Y.S. Yadav, R. Guleria, N.K. Vikram, V. Nandhan, A.K. Gupta (New Delhi, IN)
- P502 Sleep dysfunction in patients with panhypopituitarism**
O. Urdanibia, O. Ciopat, M. Diaz, T. Torres, P. Rubio, M. Rubio, M.I. Del Olmo, R. Cámara, E. Gómez (Valencia, ES)
- P503 Effect of sleep modulation on trauma-induced cognitive impairment and histological trauma marker in a rat model of closed, diffuse traumatic brain injury**
M.M. Morawska, F. Büchele, M. Penner, D. Noain, C.R. Baumann (Zurich, CH)
- P504 Sleep structure and cardiometabolic disorders in the general population: the Hypnolaus study**
J. Haba-Rubio, P. Marques-Vidal, D. Andries, N. Tobback, M. Preisig, P. Vollenweider, G. Waeber, G. Luca, M. Tafti, R. Heinzer (Lausanne, CH)
- P505 Effect of sleep disordered breathing on postural stability**
F. Degache, Y. Goy, S. Vat, J. Haba Rubio, O. Contal, R. Heinzer (Lausanne, CH; Montreal, CA)
- P506 Obstructive sleep apnea syndrome (OSAS) and erythrocytosis**
P. Arrieta Narvaez, C. Jurkojc Mohremberger, E. Mañas Baena, R. Mirambeaux Villalona, C. Gotera Rivera, D. Barrios Barreto, P. Lazo Meneses, M.A. Galarza Jimenez, P. Castro Gomez, J. Garcia de Leaniz, E. Perez Rodriguez (Madrid, ES)
- P507 High rates of medical comorbidity in narcolepsy: findings from the burden of narcolepsy disease (BOND) study of 9,312 patients in the United States**
J. Black, N. Reaven, S. Funk, K. McGaughey, M. Ohayon, C. Guilleminault, C. Ruoff (La Canada, Palo Alto, San Luis Obispo, US)
- P508 Nocturnal intermittent hypoxemia: utility for the evaluation of severity sleep apnea and cardiovascular comorbidity**
P.M. Lazo Meneses, E. Mañas Baena, C. Gotera Rivera, D. Barrios Barreto, A. Pedrera Mazarro (Madrid, ES)
- P509 Impact of continuous positive airway pressure (CPAP) on chronic cough in obstructive sleep apnoea (OSA) – a randomized controlled trial**
K. Chan, S. Birring, G. Cossa, L. Laks, P. Rogers, A. Ing (Concord, Sydney, Sydney, AU; London, GB)
- P510 Interrelationship of sleep quality with fatigue, neuroticism and global health in unexplained chronic fatigue: the validity of current fatigue scales**
A. Mariman, E. Tobback, I. Hanouille, L. Delesie, D. Pevernagie, D. Vogelaers (Ghent, BE)
- P511 The effect of one year CPAP therapy on blood pressure values in obstructive sleep apnea patients with severe resistant hypertension-an on going study**
O.C. Deleanu, A.E. Malaut, A.R. Sandu, M.M. Micheu, F.D. Mihaltan (Bucharest, RO)
- P512 Napping and risk of type 2 diabetes in adult humans**
C. Hublin, M. Partinen, M. Koskenvuo, J. Kaprio (Helsinki, FI)
- P513 Co-Morbidities in a Portuguese sample of obstructive sleep apnoea patients**
A. Martins da Silva, L. Silva, D. Cunha, J. Lopes, J. Ramalheira (Gandra, Porto, PT)
- P514 Sleep disorders in patients with fatigue-related problems**
E. Pajediene, D. Friberg, I. Bileviciute-Ljungar (Kaunas, LT; Stockholm, SE)

- P515 Health complaints across age and gender: the impact of sleep variables**
T. Paiva, J. Maltez, M. Gonçalves (Lisbon, Oporto, PT)
- P516 Sleep disturbances and quality of life in symptomatic patients with stable chronic obstructive pulmonary disease**
P. Boglou, D. Tsavlis, E. Nena, M. Xanthoudaki, S. Steiropoulos, P. Ntoliou, D. Bouros, P. Steiropoulos (Alexandroupolis, GR)
- P517 Sleep quality and cytokine expression in adults with and without inflammatory bowel disease**
J.A. Groeger, P.J. Kennedy, G. Clarke, A. O'Neill, E. Quigley, F. Shanahan, J.F. Cryan, T.G. Dinan (Hull, GB; Cork, IE)
- P518 The wake-up bus sleep study: falling asleep at the wheel in 19 European countries**
M.A. Goncalves, R. Amici, P. Peigneux, R. Lucas, T. Åkerstedt, F.C. Cirignotta, J. Horne, D. Léger, W. McNicholas, M. Partinen, J. Téran Santos, L. Grote (Lisbon, Porto, PT; Regensburg, DE)
- P519 Impact of sleep quality and clinical outcome in the ICU patients: Central Asian study**
T. Sosorburam (Wuhan, CN)
- P520 Predictors of self-reported sleep quality in university students**
F. Lopes, A.T. Pereira, A.A. Gomes, M.H. Azevedo (Coimbra, PT)
- P521 Association between sleep quality and computer use among university students**
H. Hassani, G. Salehi, K. Sadeghniaat-Haghighi (Tehran, IR)
- P522 Survey for sleep of neurology residents**
W.-J. Kim, J.H. Lee (Goyang-Si, Seoul, KR)
- P523 Pets in the bedroom: a survey of American patients**
L.E. Krahn (Scottsdale, US)

18.30 – 20.00 Normal physiology of sleep and normal variants Poster Exhibition

- P524 Association between insulin and leptin levels and sleep duration in general population**
M. Bochkarev, L. Korostovtseva, Y. Sviryaev, E. Moguchaya, A. Alieva, E. Kolesova, A. Orlov, M. Boyarinova, E. Dudorova, O. Rotar, A. Konradi (Saint-Petersburg, RU)
- P525 Stage 1 sleep: “no man’s land” between the opponent driving forces for wake and sleep**
A. Putilov (Novosibirsk, RU)
- P526 Estimating individual optimal sleep time and potential sleep debt**
S. Kitamura, K. Nakazaki, Y. Motomura, Y. Katayose, A. Hida, K. Oba, R. Katsunuma, Y. Terasawa, M. Enomoto, K. Nozaki, Y. Moriguchi, K. Mishima (Kodaira, JP)
- P527 Mechanisms underlying the association between anxiety and sleep architecture in healthy good sleepers: the role of pre-sleep arousal**
N.L. Barclay, G.J. Elder, R. Sharman, A. Sanchez, J.G. Ellis (Guildford, Newcastle, Newcastle upon Tyne, GB)
- P528 Sleeping towards or against earth electromagnetic field?**
M.S. Banaei Abrand Abadi, A. Yazdanfar, A. Hekmatmanesh, K. Sadeghniaat-Haghighi (Tehran, IR)
- P529 The alerting effects of ad-libitum daytime naps**
N. Lovato, T. Jarrad, G. Micic, L. Lack (Adelaide, AU)
- P530 Physiologic effects of non-awakening electrocutaneous stimulation of palm during slow wave period of nap**
V.B. Dorokhov, G.N. Arsenyev, O.N. Tkachenko, A.N. Puchkova, E.A. Lukyanova, K.B. Filimonova, D.E. Shumov, P.A. Indursky (Moscow, RU)

- P531 Involvement of the amygdala in blood pressure fluctuation during REM sleep**
Y. Koyama, K. Nishimura, N. Haruyama, H. Ohnami, T. Aoyagi (Fukushima, JP)
- P532 The European Portuguese version of the children chronotype questionnaire (CCTQ): reliability and raw scores in a large continental sample**
D.A. Couto, A.C. Allen Gomes, M.H.P. De Azevedo, S.C. Bos, J.A. Leitão, C.F. da Silva (Aveiro, Coimbra, PT)
- P533 Efficacy of Japanese sake yeast on the sleep quality: a double-blind randomised controlled clinical trial**
N. Monoi, A. Matsuno, H. Minamino, T. Sugafuji, T. Seko, Y. Nakamura, E. Fukushima, T. Midorikawa, M. Murakoshi, A. Uchiyama, K. Sugiyama, H. Nishino, Y. Urade (Kyoto, Odawara, Kanagawa, Tsukuba, JP)

18.30 – 20.00

Instrumentation and methodology

Poster Exhibition

- P534 Sleep estimation based on respiratory analysis**
A. Tataraidze, L. Anishchenko, M. Alekhin, L. Korostovtseva, Y. Sviryaev (Moscow, St. Petersburg, RU)
- P536 Investigating novel variables based on a probabilistic model of sleep microstructure for characterizing hypnotic drug effects**
G. Dorffner, J. Sontheimer, G. Gruber, P. Anner, J. Dingemans (Vienna, AT; Allschwil, CH)
- P537 Could a virtual human be used to explore excessive daytime sleepiness in patients?**
P. Philip, S. Bioulac, A. Sauteraud, C. Chaufton, J. Olive (Bordeaux, FR)
- P538 Automatic sleep classification using a data-driven approach reveals six latent sleep states**
H. Koch, J.A.E. Christensen, R. Frandsen, M. Zoetmulder, L. Arvastson, S.R. Christensen, H.B.D. Sorensen, P. Jennum (Copenhagen, Kgs. Lyngby, Valby, DK)
- P539 Feasibility of sleep apnea detection using a single piezo snoring sensor**
E. Urtnasan, J.U. Park, H.K. Lee, H.J. Kim, K.J. Lee (Seoul, Wonju, KR)
- P540 Polish adaptation of Holland Sleep Disorders Questionnaire – first impression from pilot study**
R. Rogoza, M. Maćkiewicz, G.A. Kerkhof, C. Żechowski, A. Wichniak (Warsaw, PL; Amsterdam, NL)
- P541 Automatic artifact detection for whole-night polysomnographic sleep recordings**
D. Coppieters, S. Chellappa, G. Gaggioni, M. Jaspar, C. Meyer, V. Muto, G. Vandewalle, P. Maquet, C. Phillips (Liège, BE)
- P542 Efficacy of the mandibular advancement device in patients with sleep apnea syndrome**
P. Lazo Meneses, E. Mañas Baena, C. Gotera Rivera, D. Barrios Barreto (Madrid, ES)
- P543 RemLogic® plug-in enables calculation of apnea-hypopnea index adjusted for severity of individual obstruction events**
T. Leppänen, M. Särkkä, A. Kulkas, A. Muraja-Murro, S. Kupari, P. Tiihonen, E. Mervaala, J. Töyräs (Kuopio, Seinäjoki, FI)
- P544 Effect of different oxygen desaturation threshold criteria used for defining hypopneas on conventional and adjusted apnea-hypopnea indices and classification of sleep apnea severity**
K. Myllymaa, S. Myllymaa, T. Leppänen, S. Kupari, A. Kulkas, P. Tiihonen, E. Mervaala, J. Seppä, H. Tuomilehto, J. Töyräs (Kuopio, Seinäjoki, FI)
- P545 The new therapy of sleep disturbances and depression by using the non-awakening electrostimulation during SWS**
P.A. Indursky, V.V. Markelov, V.M. Shakhnarovich, V.B. Dorokhov (Moscow, RU)

- P546 FASST, “fMRI artefact removal and sleep scoring toolbox”**
D. Coppieters, J. Schrouff, P. Maquet, C. Phillips (Liège, BE)
- P547 Heart rate variability evaluation of sleep mattress breathing categories**
M. Tenhunen, J. Lipponen, J. Virkkala, S. Kuusimäki, S.-L. Himanen (Helsinki, Kuopio, Tampere, FI)
- P548 Evaluation of compressed tracheal sound patterns in screening of sleep-disordered breathing**
M. Tenhunen, E. Huupponen, J. Hasan, O. Heino, S.-L. Himanen (Tampere, FI)
- P549 Overnight pulse wave analysis in patients with suspected sleep apnea and diabetes mellitus**
D. Sommermeyer, J. Hedner, D. Zou, J.H. Ficker, W. Randerath, T. Penzel, B. Sanner, L. Grote (Gothenburg, SE; Berlin, Nuernberg, Solingen, Wuppertal, DE)
- P550 Features analysis of actigraphic recordings for sleep/wake classification**
G. Orellana, C. Held, P. Estevez, C. Perez, S. Reyes, C. Algarin, P. Peirano (Santiago, CL)
- P551 Previous irregular sleep pattern may influence the first night effect**
H.-K. Yoon, H.-J. Lee, D.-H. Lee, L. Kim, C.-H. Cho, S.-G. Kang (Incheon, Seoul, KR)
- P552 Can we define a threshold for MWT sleep latencies regarding driving risk?**
P. Philip, C. Chauton, J. Taillard, P. Sagaspe, D. Léger, M. Raimondi, A. Vakulin, A. Capelli (Bordeaux, Paris, FR; Lugano, CH; Adelaide, AU)

- P553 Sleep duration and cognitive performance in older adults: a systematic review and meta-analysis**
J.C. Lo, G. Cheng, K.K. Loh, R. Leong, M. Chee (Singapore, SG; Hong Kong, HK)
- P554 Sleep across the ages: pediatric, adult, and, geriatric idiosyncrasies**
P. Seibert, C. Dehaas, J. Valerio, F. Grimsley, C. Zimmerman (Boise, US)
- P555 Changes in sleep across the lifespan: using mathematical models to explore hypotheses to explain sleep timing**
A. Skeldon, D.-J. Dijk, G. Derks (Guildford, GB)
- P556 Caffeine chronic consumption during early post-weaning in rats negatively affects emotional status later in life**
T. Basishvili, R. Szymusiak, I. Gvilia (Tbilisi, GE; Los Angeles, US)
- P557 Associations between nocturnal sleep and daytime functioning in 206 healthy young, middle-aged and older participants**
C. della Monica, G. Atzori, S. Johnsen, J.A. Groeger, D.-J. Dijk (Guildford, GB)
- P558 Neonatal sleep restriction induces pronociceptive behaviour and changes in c-Fos expression in periaqueductal gray of adolescent mice**
P. Araujo, C.A.O. Coelho, M.G.M. Oliveira, S. Tufik, M.L. Andersen (São Paulo, BR)

- P559 Health hazards accumulate to evening chronotype**
I. Merikanto (Helsinki, FI)
- P560 What could “owls” do in our ancestral environment? Evolutionary chronotypological account for the origin of nocturnal lifestyle**
A. Putilov (Novosibirsk, RU)
- P561 Seasonal variation in human executive brain responses**
C. Meyer, M. Jaspard, V. Muto, C. Kussé, S.L. Chellappa, C. Degueldre, E. Balteau, A. Luxen, F. Collette, B. Middleton, C. Phillips, S.N. Archer, D.-J. Dijk, G. Vandewalle, P. Maquet (Liege, BE; Guildford, GB)
- P563 Chronotype-dependent nap behaviour in shift workers**
J.L. Mehlmann, D. Fischer, C. Vetter, T. Roenneberg (Munich, DE)
- P564 Assessment of difference in chronotypes between patients with multiple sclerosis and healthy controls**
M. Mioč, B. Barun, M. Habek, A.K. Barušić, I. Bach (Zagreb, HR)
- P565 Individual differences in the variability of sleep times across the week**
M.T. Blagrove (Swansea, GB)
- P566 Effects of lunar phase on sleep in men and women in Surrey**
C. della Monica, G. Atzori, D.-J. Dijk (Guildford, GB)
- P567 Sleep habits in a representative sample of the Swiss population**
G. Tinguely, H. Landolt, C. Cajochen (Basel, Bern, Zurich, CH)
- P568 Association between morningness/eveningness, addiction severity and psychiatric disorders among individuals with addictions**
M. Fatseas, C. Kervran, R. Debrabant, J. Leboucher, J.-M. Alexandre, F. Serre, J. Taillard, P. Philip, M. Auriacombe (Bordeaux, FR)

- P569 Sleep and fatigue among officers on board gas tankers**
E.F.E.R. Rongen, A.E.W.G. Rost-Ernst, R. Kloos, W.M.A. van Leeuwen (Rotterdam, NL; Stockholm, SE)
- P570 Long term sleep and fatigue at sea: a field study**
W.M.A. van Leeuwen, M. Barnett, C. Pekcan, G. Kecklund, T. Åkerstedt (Stockholm, SE; Southampton, GB)
- P571 Effect of circadian thermoregulatory phase in recovery of both temperature and rest/activity rhythms after a standard physical exercise in rats**
O.-C. Koumar, V. Crunel, V. Bouet, T. Fréret, S. Moussay, N. Bessot (Caen, FR)
- P572 Naturalistic field study of sleep and performance in truck drivers: effects of the number of nights in the restart break between duty cycles**
A.R. Sparrow, R. Bartels, K. Kan, S.M. Riedy, A. Unice, B.C. Satterfield, D.J. Mollicone, H.P.A. Van Dongen (Philadelphia, Spokane, US)
- P573 Age-dependent non-visual effects of a moderately bright light exposure during 40-hours of extended wakefulness**
V. Gabel, M. Maire, C.F. Reichert, C. Schmidt, C. Garbazza, C. Cajochen, A.U. Viola (Basel, CH)
- P574 Nightmares are associated with seasonal variations in mood and behavior**
K. Valli, N. Sandman, E. Kronholm, A. Revonsuo, T. Laatikainen, T. Partonen, T. Paunio (Helsinki, Turku, FI)
- P575 Chronotype, genotype and sleep behaviours in adolescents; the effect of technology access on preferred and actual behaviour**
S. O'Neill, S. Dockray (Cork, IE)
- P576 Is chronotype associated with cardiovascular risk factors?**
S. Puttonen, P. Vanttola, M. Härmä, K. Viitasalo (Helsinki, FI)
- P577 Cortical excitability dynamics during extended wakefulness set PVT performance**
C. Borsu, G. Gaggioni, J.Q.M. Ly, S. Papachilleos, A. Brzozowski, M. Rosanova, S. Sarasso, S.N. Archer, D.-J. Dijk, C. Phillips, P. Maquet, M. Massimini, S.L. Chellappa, G. Vandewalle (Liege, BE; Milan, IT; Guildford, GB)
- P578 Influence of artificial dusk on sleep**
K.V. Danilenko, V. Hommes (Novosibirsk, RU; Drachten, NL)
- P579 Social jetlag in Korean people**
S.-H. Baek, H. Im, J.-S. Kim, S.-H. Park, C.-H. Yun (Seongnam, KR)
- P580 The effect of bright light treatment via ear canals (device VALKEE™) on mood and well-being in healthy subjects**
G. Kloesch, V. Frey, L. Stolzlechner, S. Tschoner, E. Millesi (Vienna, AT)
- P581 Ultradian rest-activity rhythm of fetal movement starts in conceptual 28-weeks**
K. Nishihara, S. Horiuchi (Kawasaki-shi, Tokyo, JP)
- P582 Working night shifts affects surgeons' biological rhythm**
I. Amirian, L.T. Andersen, J. Rosenberg, I. Gögenur (Herlev, DK)
- P583 Chronotype and P300 amplitude after chronic sleep restriction**
H. Oginska, E. Beldzik, A. Domagalik, M. Fafrowicz, T. Marek (Krakow, PL)
- P584 Blue blocker glasses as a countermeasure for alerting effects of evening LED-screen exposure in teenagers**
S. Van der Lely, F. Sylvia, A. Wirz-Justice, C. Garbazza, O.G. Jenni, C. Cajochen, C. Schmidt, V. Bromundt (Basel, Zürich, CH)
- P585 Short day forced desynchrony in C57BL/6J mice leads to arrhythmia and sleep disturbances**
S. Hasan, R. Foster, S. Peirson (Oxford, GB)

- P586** **Change to higher illuminance and light colour temperature in open office, implications for sleep and sleepiness in Scandinavian winter**
A. Lowden, B.M.I. van der Zande, L. Geerdinc (Stockholm, SE; Eindhoven, NL)

16.15 – 17.45 Learning, memory and cognition 2

Poster Exhibition

- P587** **Sleep-dependent changes in learning-related magnetic evoked fields in children**
C. Urbain, X. De Tiège, M. Op De Beeck, A. Nonclercq, D. Verheulpen, M. Bourguignon, R. Schmitz, S. Galer, P. Van Bogaert, P. Peigneux (Brussels, BE)
- P588** **The role of rapid eye movement sleep for the consolidation of emotional stories**
M. Gilson, A. Bodart, G. Deliens, P. Peigneux (Brussels, BE)
- P589** **Insomnia treatment and cognitive functioning in adolescents**
E.J. de Bruin, J.F. Dewald-Kaufmann, F.J. Oort, S.M. Bögels, A.M. Meijer (Amsterdam, NL)
- P590** **The effect of sound stimulation during sleep on procedural memory processes**
E. Saure, M. Leminen, J. Virkkala, T. Paunio, M. Huotilainen (Helsinki, FI)
- P591** **Sleep-dependent memory consolidation and SMR neurofeedback - a double-blind study in primary insomnia**
M. Schabus, H. Griessenberger, D. Heib, M. Wislowska, K. Hödlmoser (Salzburg, AT)
- P592** **Fragmenting sleep with auditory stimulation: preliminary findings regarding sleep dependent memory consolidation**
S. Landry, C. Anderson, R. Conduit (Melbourne, AU)
- P593** **Sleep to boost adaptation of an over-practiced fine-motor skill**
M. Petzka, J. Birkbauer, J. Benjamins, G. Gruber, E. Van Someren, K. Hoedlmoser (Salzburg, Vienna, AT; Amsterdam, NL)
- P594** **Poor sleep, cognitive ability and function in early adolescence**
L. Kuula-Paavola, A.-K. Pesonen, S. Martikainen, K. Räikkönen-Talvitie, E. Kajantie (Helsinki, FI)
- P595** **Does unintentional learning without emotional valence still consolidate during REM-sleep?**
M.L. Wong, K.N.T. Lau, E.Y.Y. Lau (Pokfulam, HK)
- P596** **Sleep deprivation, not sleep, fosters insight in a verbal creativity task**
N. Landmann, M. Kuhn, H. Piosczyk, B. Feige, K. Spiegelhalter, C. Baglioni, D. Riemann, C. Nissen (Freiburg, DE)
- P597** **Memory is affected by sounds presented with time-locking to EEG delta**
M. Huotilainen, M. Leminen, M. Gröhn, C. Hublin, T. Paajanen, E. Saure, J. Virkkala, T. Paunio (Helsinki, FI)
- P598** **How to measure sleep-dependent memory consolidation? - Don't forget the within-block position effect**
D. Nemeth, K. Janacsek (Budapest, HU)
- P599** **No sleep-related enhancement in consolidation of implicit skills**
K. Janacsek, E. Hallgato, J. Pekar, D. Gyori-Dani, D. Nemeth (Budapest, Szeged, HU; Berlin, DE)
- P600** **Effects of gentle rocking on sleep and memory**
A. Perrault, L. Bayer, S. Perrig, M. Muhlethaler, S. Schwartz (Geneva, CH)
- P601** **The role of memory strength for sleep-associated memory consolidation**
D.P.J. Heib, N. Luketina, C. Holterman, K.-H.T. Bäuml, M. Schabus (Salzburg, AT; Regensburg, DE)

- P602** **Slow oscillations during NREM sleep in adolescents are related to intellectual abilities**
K. Hoedlmoser, D.P.J. Heib, K. Bothe, S. Tibi, D. Koerner, M. Schabus (Salzburg, AT)
- P603** **Retroactive memory interference and reconsolidation in long term memory**
A. Mary, S. Jobbe-Duval Mesa, P. Peigneux (Brussels, BE)
- P604** **Expose to emotional stimuli change the micro structural sleep electroencephalography**
S. Seifpour, M. Mikaili, K. Sadeghniaat, A. Hekmatmanesh, A. Khorrami (Tehran, IR)
- P605** **The role of REM-sleep in emotional recognition bias and discriminability**
K.N.T. Lau, M.L. Wong, E.Y.Y. Lau (Hong Kong, HK)
- P606** **Detecting memory replay during sleep**
S.Y. Belal, J. Cousins, W. El-Deredy, L. Parkes, J. Schneider, P. Lewis (Manchester, GB)

16.15 – 17.45 **Dreaming** Poster Exhibition

- P607** **The effect of low-frequency repetitive transcranial magnetic stimulation (rTMS) on subjective dream experience during sleep onset period**
K.-J. Laak, T. Bachmann, J. Aru (Tartu, EE)
- P608** **Aggression in dreams of adolescents and young adults: further exploration of gender and within age differences**
A. Dale, C. Wong, J. De Koninck (Ottawa, CA)
- P609** **Does rapid eye movement (REM) sleep prepare the brain for awakening?**
J. Axelsson, G. Kecklund, L. Tigesrström (Stockholm, SE)

16.15 – 17.45 **Sleep deprivation 1** Poster Exhibition

- P610** **New findings on the link between sleep deprivation and risky behaviour in young adults**
N. Rusnac, F. Spitzenstetter, P. Tassi (Strasbourg, FR)
- P611** **Physiological and cognitive changes after total sleep deprivation**
J.-H. Jeong, K.H. Lee, M.-D. Kim, K.-J. Min, S.-Y. Lee, S.-K. Chung, D.-I. Jon, B.-H. Yoon, Y.-J. Kwon, W.-M. Bahk (Anyang, Cheonan, Gyeongju, Iksan, Jeju, Jeonju, Naju, Seoul, Suwon, KR)
- P612** **Successful sleep extension improves basal insulin resistance in usually sleep-restricted adults**
R. Leproult, G. Deliens, M. Gilson, P. Peigneux (Brussels, BE)
- P613** **Napping on the night-shift: do recovery benefits extend to the commute home?**
S.A. Centofanti, C.J. Hilditch, J. Dorrian, H.P.A. Van Dongen, S. Banks (Adelaide, AU; Spokane, US)
- P614** **Repeated sleep extension and sleep restriction in healthy young people leads to transient homeostatic responses in sleep and wake EEG**
E.L. Arbon, A.S. Lazar, J.C. Lo, S. Johnson, D.-J. Dijk (Guildford, GB)
- P615** **An EEG analogue of the Karolinska Sleepiness Scale based on the Karolinska Drowsiness Test**
A. Putilov, O. Donskaya (Novosibirsk, RU)
- P616** **Effects of 10min and 30min night-time naps on sleep inertia**
C.J. Hilditch, S.A. Centofanti, J. Dorrian, H.P. Van Dongen, S. Banks (Adelaide, AU; Spokane, US)

- P617 Effects of partial sleep deprivation on the neural mechanisms of face perception**
H. Thune, G. Nilsson, S. Tamm, P. d'Onofrio, J. Schwarz, G. Kecklund, M. Lekander, T. Åkerstedt, H. Fischer (Stockholm, SE)
- P618 Sleep restriction impairs vigilance but not temporal attention**
A. Filtness, V. Beanland (Canberra, Kelvin Grove, AU)
- P619 Association between self-reported sleep quality and metabolic syndrome among healthcare workers**
O. Aminian, K. Sadeghniaat, N. Izadi, M. Amini (Tehran, IR)
- P620 The relationship between sleepiness and driving ability**
I. Haimov, M. Cale, Y. Shafran, O. Tzischinsky (Emek Yezreel, IL)
- P621 Cocoa flavanols to counteract the effects of sleep deprivation on cognitive functions**
M. Ferrara, D. Tempesta, D. Grassi, V. Socci, C. Ferri, L. De Gennaro, G. Desideri (L'Aquila, Rome, IT)
- P622 Vigilance and cortical excitability after acute sleep deprivation and chronic sleep restriction**
A. Maric, C. Lustenberger, J. Leemann, E. Werth, F. Gilgen, C. Wettstein, A. Tarnutzer, A. Pangalu, R. Huber, C. Baumann, R. Poryazova (Zurich, CH)
- P623 The sensitivity of tests measuring driving related skills to the effects of prolonged wakefulness**
S. Jongen, E. Vuurman, J. Perrier, J.G. Ramaekers, A. Vermeeren (Maastricht, NL; Caen, FR)
- P624 Sleep and sleepiness during cumulative sleep restriction and subsequent recovery sleep**
W.M.A. van Leeuwen, T. Porkka-Heiskanen, M. Sallinen, M. Härmä (Stockholm, SE; Helsinki, FI)
- P625 Caffeine increases light responsiveness of the circadian pacemaker**
H.C. van Diepen, E.A. Lucassen, R. Yasenkov, I. Groenen, A.P. Ijzerman, J.H. Meijer, T. de Boer (Leiden, NL)
- P626 Transcriptome analysis of sleep deprivation induced neuroprotection in a rodent model of stroke**
F. Baracchi, M. Pace, C. Bassetti (Bern, CH)
- P627 Effect of adenosine receptor antagonism in the blood-brain barrier disruption induced by chronic REM sleep loss**
G. Hurtado-Alvarado, E. Domínguez-Salazar, J. Velázquez-Moctezuma, B. Gómez-González (México, MX)
- P628 Homeostatic regulation of REM sleep in narcoleptic mice**
A. Roman, S. Meftah, C. Terrier, S. Arthaud, P.-H. Luppi, C. Peyron (Lyon, FR)
- P629 EEG topography during sleep inertia after recovery from sleep deprivation**
M. Gorgoni, M. Ferrara, C. Marzano, A. D'Atri, G. Lauri, L. De Gennaro (L'Aquila, Rome, IT)
- P629a Orienting attention after sleep-loss: is it disengagement that makes the difference?**
L. Riontino, C. Cavallero (Trieste, IT)

16.15 – 17.45 Sleep disorders – Breathing 2

Poster Exhibition

- P630 Didgeridoo therapy for Korean patients with obstructive sleep apnea**
D. Kim, J.H. Kim, Y.-J. Cho, J.-G. Seo, H. Kim, S.B. Hong (Cheonan, Daegu, Daejeon, Goyang, Seoul, KR)

- P631 Sleep apnea in diabetic patients with macular oedema**
J. Truchot, L. Margarit, J.L. Pepin, B. Dupas, P. Massin, E. Vicaut, M.P. d'Ortho (Grenoble, Paris, FR)
- P632 Sleep apnea and autonomic profile in patients undergoing coronary artery bypass grafting surgery**
M. Al-Abri, M. Mukaddirov, D. Jaju, H. Al-Sabti, K. Al-Hashmi, M. Hassan (Muscat, OM)
- P633 Sleep loss and sleep disorders and their impact on the short- and long-term outcome of stroke**
S.B. Duss, T. Horvath, F. Zubler, A. Seiler, C. Roth, R. Wiest, S.R. Ott, M. Manconi, C.L. Bassetti (Bern, Lugano, CH)
- P634 Plasma homocysteine in sleep apnea: a cardiovascular risk marker and the study of its relationship with respiratory parameters of sleep**
J. Fernández-Lahera, F. Ezzine, M. Martínez, A. Iglesias, J. Alfayate, F. De Borja, I. Artilés, R. Casitas, I. Fernandez, F. G Rio, R. Alvarez-Sala (Madrid, ES)
- P635 Planetary habitat simulation: interactions between bedrest, hypoxia and confinement on sleep and breathing**
S.A. Morrison, D. Mirnik, Š. Korsic, O. Eiken, I.B. Mekjavic, L. Dolenc Groselj (Ljubljana, SI; Stockholm, SE)
- P636 Is obstructive sleep apnea in older adults is associated with changes in the characteristics of sleep slow waves?**
K. Gagnon, A.-A. Baril, C. Arbour, A. Décary, J. Carrier, J. Montplaisir, J.-F. Gagnon, N. Gosselin (Montreal, CA)
- P637 Efficacy of oral appliances for treating obstructive sleep apnea syndrome in a Japanese clinical setting**
H. Kadotani, M. Arimura, M. Uetsu, M. Yamori, M. Matsuo, A. Yoshimura, N. Yamada (Nagahama, Otsu, JP)
- P638 Sexual dysfunction in severe OSA**
J.W. Cho, K.T. Kim (Yangsan, KR)
- P639 Can auto CPAP titration replace CPAP titration of split-night polysomnography?**
K.T. Kim, S.H. Park, D.-J. Kim, J.W. Cho (Pusan, Yangsan, KR)
- P640 Effect of gender in prevalence of different comorbidities of obstructive sleep apnea patients**
M. Xanthoudaki, E. Nena, M. Manidou, M. Markou, S. Steiropoulos, G. Kolios, D. Bouros, P. Steiropoulos (Alexandroupolis, GR)
- P641 Slow wave activity during sleep as a marker of impaired vigilance after sleep loss in obstructive sleep apnoea**
A. Vakulin, A. D'Rozario, H. Openshaw, D. Stevens, K. Wong, J.-W. Kim, R.D. McEvoy, R. Grunstein (Adelaide, Sydney, AU)
- P642 Do clinical sleep measures predict vigilance impairment following sleep loss in patients with obstructive sleep apnoea?**
H. Openshaw, H. Naqvi, A. Vakulin, D. Stevens, A. D'Rozario, K. Wong, D. McEvoy, R. Grunstein (Adelaide, Sydney, AU)
- P643 Modafinil and armodafinil in obstructive sleep apnoea. A systematic review and meta-analysis**
J.L. Chapman, A. Vakulin, B.J. Yee, N.S. Marshall (Glebe, AU)
- P644 Do sleep stages affect the occurrence of respiratory events with arousals?**
H. Nakayama, M. Kobayashi, M. Yanagihara, E. Ito, S. Kasagi, Y. Setoguchi, Y. Inoue (Tokyo, JP)
- P645 Six-months of CPAP treatment enhances slow wave activity and mood in OSA patients**
A.L. D'Rozario, A. Vakulin, K.K. Wong, J.W. Kim, D. Kim, R.R. Grunstein, D.J. Bartlett (Daw Park, Sydney, AU)

- P646 Cost-effectiveness of positive airway pressure treatment in patients with obstructive sleep apnea syndrome**
D. Zou, M. Gannedahl, R. Harlid, J.F. Guest, J. Hedner (Gothenburg, Stockholm, SE; Northwood, GB)
- P647 Usefulness of Epworth sleepiness scale for screening patients for severe obstructive sleep apnea among Bulgarian population**
K. Terziyski, A. Draganova, A. Hristova, S. Kostianev (Plovdiv, BG)
- P648 Increased carbonic anhydrase activity is associated with nocturnal hypoxia in obstructive sleep apnea**
D. Eskandari, T. Wang, D. Zou, L. Grote, J. Hedner (Gothenburg, SE)
- P649 Prevalence of obstructive sleep apnea syndrome in a population of non severely obese patients with nonalcoholic fatty liver disease**
M. Bulgheroni, E. Tobaldini, E. Pulixi, M. Pecis, M. Stracuzzi, S. Pelusi, A.L. Fracanzani, S. Fargion, L. Valenti, N. Montano (Milan, IT)
- P650 Acromegaly screening in patients with sleep apnea symptoms**
A.T. Javier (Barcelona, ES)
- P651 Obstructive sleep apnea with insomnia in hypertensive primary care patients – association with sleep complaints, depressive symptoms and self-rated health**
A. Broström, M. Ulander, O. Sunnergren, E. Svanborg, P. Johansson (Jönköping, Linköping, SE)
- P652 STOPBang as a predictor of severity of obstructive sleep apnea**
I.B.M. IJsseldijk (Zwolle, NL)
- P653 Vigilance and attention deficits are associated with motor vehicle accidents in sleep apnea patients**
M. Karimi, J. Hedner, D. Zou, D. Eskandari, A.-C.L. Lundquist, L. Grote (Gothenburg, SE)
- P654 Prone positioning for treatment of obstructive sleep apnoea**
A. Bidarian- Moniri, M. Nilsson, J. Attia, H. Ejnell (Gothenburg, SE; Newcastle, AU)
- P655 Combination of sleep apnea syndrome and haemangioma of the head and neck region: case study**
B. Faludi, M. Imre, L. Lujber, A. Büki (Pécs, HU)
- P656 Relationship between apnea-hyponea index, Body-Mass-Index and the Epworth sleepiness scale in patient with OSAS**
T. Chikadze, E. Tsitlidze, L. Khuchua, A. Chikadze (Tbilisi, GE)
- P657 First-night effect and night-to-night variability in patients with suspected OSAS**
P. Anderer, A. Moreau, M. Ross, A. Cerny, S. Löffler, S. Thusoo (Vienna, AT)
- P658 The effectiveness of mandibular reposition appliances (MRA) in treatment of obstructive sleep apnea**
K.E. Schreuder, L.C. Rohling, X.H. de Vries, A. Hoekema, K. Finnema, A.W. de Weerd (Heerenveen, Zwolle, NL)
- P659 An adjustable mandibular advancement device for the treatment of obstructive sleep apnea syndrome and its implications on glucose metabolism: a prospective 1-year follow-up study**
T. Galic, J. Bozic, I. Galic, N. Ivkovic, F. Mihanovic, T. Ticinovic Kurir, Z. Dogas (Split, HR)
- P660 Factors for successful pharyngoplasty, Two-P4 (Two-piece Palatopharyngoplasty) in patients with obstructive sleep apnea syndrome**
I. Komada, S. Miyazaki, M. Okawa, M. Nishikawa, T. Tanaka, T. Kitamura, T. Shimizu (Kitakyusyu, Kusatsu, Kyoto, Otsu, Tokyo, JP)
- P661 Morbid obesity and woman age are related to the obstructive sleep apnoea syndrome**
R. Huerta, F. Sánchez-Narváez, A. Labra, J.M. Perez, E. Garcia-Campos, J.H. Medina-Chavez, R. Haro (México, MX)

- P663 Relationship between anthropometric measures and obstructive sleep apnoea in Mexican population**
J.H. Medina-Chavez, A. Labra, F. Sánchez-Narváez, J.E. Solís-Rodríguez, E. Garcia-Campos, R. Huerta, R. Haro (México, MX)
- P664 HRV does not reflect severity of OSA in elderly**
E.-J. Kim, S.H. Kim, Y.M. Ahn (Seoul, KR)
- P665 Comparison of manual and automatic evaluation of polygraphy in patients after acute myocardial infarction**
R. Štěpánová, O. Ludka, T. Kára, J. Špinar (Brno, CZ)
- P666 Correlation between blood pressure overreaction during exercise test and severity of obstructive sleep apnea**
M. Sova, E. Sovova, M. Hobzova, M. Kamasova, J. Zapletalova, V. Kolek (Olomouc, CZ)
- P667 Correlation between exercise test results and body composition measured by bioimpedance method in patients with obstructive sleep apnea**
E. Sovova, M. Sova, M. Hobzova, M. Kamasova, J. Zapletalova, V. Kolek (Olomouc, CZ)
- P668 The consolidation of declarative and non-declarative memory in children with sleep disorder breathing**
E. Csabi, P. Benedek, K. Janacsek, G. Katona, D. Nemeth (Budapest, Szeged, HU)
- P669 The incidence of atrial fibrillation in hypertensive patients: the role of obstructive sleep apnea**
L. Korostovtseva, Y. Sviryayev, N. Zvartau, O. Rotar, A. Konradi, E. Shlyakhto (St. Petersburg, RU)
- P670 Comparison of metabolic and endocrine parameters in patients with moderate and severe obstructive sleep apnea**
J. Bozic, T. Galic, D. Supe-Domic, N. Ivkovic, T. Ticinovic Kurir, Z. Valic, Z. Dogas (Split, HR)
- P671 nocturia and morbid obesity as predictors for severe apnoea-hypopnoea index and SaO₂ decrease**
A. Labra, A. Palacios, F. Sánchez-Narváez, A.-D. Huerta-Delgado, R. Haro-Valencia (México, MX)
- P672 Efficacy of the combined approach uvulopalatopharyngoplasty-base of tongue somnoplasty as a treatment of the obstructive sleep apnoea syndrome**
A. Labra, A.-D. Huerta-Delgado, J.H. Medina-Chávez, R. Haro-Valencia (México, MX)
- P673 efficacy of submucosal sodium tetradecyl sulfate in the soft palate as a treatment of the mild obstructive sleep apnoea syndrome. A pilot study**
A. Labra, R. Haro-Valencia, A.-D. Huerta-Delgado, E.P. García-Campos, J.H. Medina-Chávez, R. Huerta (México, MX)
- P674 Association of excessive daytime sleepiness with smoking, inflammatory markers and cardiovascular risk**
L.M. Puiu (Baia-Mare, RO)

16.15 – 17.45 Sleep disorders – Insomnia 2

Poster Exhibition

- P675 Spindles and slow waves predict treatment responses to cognitive-behavioural therapy for chronic primary insomnia**
J. O'Byrne, S. Boucetta, L. Reed, O. Malhi, V. Zhang, A. Arcelin, K. Wenzel, M. Brandewinder, C. Berthomier, J.-P. Gouin, T.T. Dang-Vu (Montreal, CA; Paris, FR)
- P676 The effect of mindfulness-based stress reduction on insomnia complaint in naturalistic sample of adult outpatients**
K. Cervena, F. Jermann, P. Cordera, C. Carlei, B. Weber, J.-M. Aubry, G. Bondolfi (Geneva, CH)

- P677 Prevalence of insomnia and its impact on anxiety, depression and quality of life in Korean fire fighters**
S.Y. Lee, W.-M. Bahk, S.-K. Chung (Iksan, Jeonju, Seoul, KR)
- P678 Role of insomnia in perceived stress and coping strategies in subjects with arterial hypertension**
L. Palagini, R. Bruno, V. Mancuso, M. Mauri, L. Ghiadoni, S. Taddei (Pisa, IT)
- P679 Association between insomnia and use of blood pressure-lowering drugs in hypertensive patients: a cross-sectional cohort study**
R. Bruno, L. Palagini, V. Mancuso, M. Cargioli, M. Mauri, L. Ghiadoni, S. Taddei (Pisa, IT)
- P680 NREM sleep instability is dramatically reduced in patients with chronic insomnia and dependence on high dosage of benzodiazepines**
S. Miano, R. Ferri, V. Bottasini, M. Zucconi, M. Maestri, L. Ferini-Strambi, M. Manconi (Lugano, CH; Milan, Troina, IT)
- P681 Perceptions of insomnia and daytime symptoms as a function of objective sleep duration**
D.C. Jarrin, A. Rochefort, M. Lamy, H. Ivers, C. Morin (Québec, CA)
- P682 The effectiveness of an Internet based treatment for insomnia**
E. Bjornsdottir, S. Ellertsson, G. Johannsson, H. Hrubos-Strøm (Reykjavík, IS; Lørenskog, NO)
- P683 Clinical significance of nocturnal 6-Sulfatoxymelatonin excretion in insomnia**
O. Tikhomirova, E. Butyrina, N. Zybina, M. Frolova (Saint Petersburg, RU)
- P684 Patients' perceptions of insomnia and its treatments options: a focus group approach**
T. Araújo, S. Lachance, M. Bolduc, A. Vallée, A. Vallières, C. Morin (Québec, CA)
- P685 Sleep quality and knowledge of sleep hygiene in working population**
A. Juozapaitienė, D. Mataciuniene (Vilnius, LT)
- P686 Effect of diaphragmatic breathing, progressive muscle relaxation and guided imagery on perceived stress, and cortisol salivary levels in primary insomnia sufferers: a randomized controlled trial**
A. Konsta, D. Dikeos, A. Bonakis, N.-T. Economou, G. Chrousos, C. Darviri (Athens, GR)
- P687 Polysomnographic features in insomniacs with anxiety with or benzodiazepines use**
R. Haro, F. Sánchez-Narváez, E. Garcia-Campos, A. Labra, R. Huerta, J.H. Medina-Chavez (México, MX)
- P688 Polysomnographic features in insomniacs with obstructive sleep apnoea**
F. Sánchez-Narváez, A. Labra, R. Huerta, E. Garcia-Campos, J.H. Medina-Chavez, R. Haro (México, MX)
- P689 Preliminary study: dreams of insomnia sufferers and their personality**
C.H. Bastien, M.-C. Auger, M. Desrochers-Couture, K. Turgeon, A.D. Perusse (Québec, CA)
- P690 Coping strategies mediate the effects of insomnia symptoms on maternal depression during pregnancy and following childbirth**
L. Kempler, D.J. Bartlett, L. Sharpe (Glebe, Sydney, AU)
- P691 Cognitive behavioral therapy in patients with psychophysiological insomnia**
D. Moser, E. Matt, K. Trimmel, S. Seidel (Vienna, AT)
- P692 Melatonin rhythm and sleep timing in community-dwelling insomnia patients**
J.H. Lee, J. Lee, S.J. Kim, I.B. Suh (Chunchon, KR; Chicago, US)
- P693 Stress related sleep reactivity depends on metacognition in primary insomnia**
L. Palagini, R.M. Bruno, L. Caccamo, M. Mauri, C.L. Drake (Pisa, IT; Detroit, US)

- P694 The Zurich 3-step concept for the management of behavioural sleep disorders in children: a before and after study**
H. Werner, P. Hunkeler, C. Benz, L. Molinari, C. Guyer, F. Häfliger, R. Huber, O. Jenni (Zurich, CH)
- P695 Guided Internet-delivered cognitive behavioral treatment for insomnia: a randomized trial**
A. van Straten (Amsterdam, NL)
- P696 Empirically deriving distinct insomnia subtypes: The Netherlands Sleep Registry**
T. Hoekstra, J. Benjamins, F. Migliorati, J. Twisk, E. van Someren (Amsterdam, NL)
- P697 Sleep coaching – a new approach in the psychological treatment of insomnia**
G. Kloesch, B. Holzinger (Vienna, AT)
- P698 Discriminating insomniacs from good sleepers on the basis of regional spectral features of high-density electroencephalography during wakefulness**
M. Colombo, J. Ramautar, G. Gomez-Herrero, Y. Sweere, C. Cajochen, E. van Someren (Amsterdam, NL; Basel, CH)
- P699 Effect of erroneous sleep habits upon insomnia and health: data from a national survey**
M. Gonçaves, J. Maltez, T. Paiva (Lisbon, Porto, PT)
- P700 Prevalence of subjective sleep disorders in general practice and morbidities associated with it in urban population of the Republic of Moldova**
V. Vovc, L. Catana (Chisinau, MD)
- P701 An investigation of dysfunctional beliefs as a mediator of cognitive behavioural therapy for insomnia in a sample with insomnia and depression**
A. Norell-Clarke, M. Tillfors, M. Jansson-Fröjmark, F. Holländare, I. Engström (Örebro, SE)
- P702 The role of positive and negative placebo in the objective nap characteristics of good sleepers**
E.I. Rasskazova, I.M. Zavalko (Moscow, RU)
- P703 Decreased plasma orexin levels in subjects with impaired sleep quality**
S. Cohrs, M. Goerke, A. Rodenbeck, K. Wiedemann, G. Winterer, D. Riemann, F. Kiefer (Berlin, Freiburg, Hamburg, Magdeburg, Mannheim, Rostock, DE)
- P704 Visual processing in primary insomnia**
E. Giora, A. Galbiati, S. Marelli, L. Ferini-Strambi (Milan, IT)
- P705 Insomnia and non-restorative sleep**
E. Flo, S. Pallesen, B. Bjorvatn (Bergen, NO)
- P706 Work and sleep – a prospective study of stress, work demands, physical work environment and work scheduling**
J. Garefelt, T. Åkerstedt, H. Westerlund, L.L. Magnusson Hansson, M. Sverke, G. Kecklund (Stockholm, SE)
- P707 The efficacy of cognitive behavioral therapy for insomnia by email follow-up after introductory sessions in person**
J.H. Kim (Cheonan, KR)

16.15 – 17.45 Sleep disorders – Movement disorders

Poster Exhibition

- P708 Restless legs syndrome among patients with chronic renal failure on regular hemodialysis**
S. Wali, A. Hashimi (Jeddah, SA)
- P709 Meta-analysis of sleep and cognition in Parkinson's disease: lessons for research design**
M.E. Pushpanathan, A.M. Loftus, R.S. Bucks (Bentley, Crawley, AU)

- P710 Actigraphy as a diagnostic aid for REM sleep behavior disorder in Parkinson's disease**
M. Louter, J.B.A.M. Arends, B.R. Bloem, S. Overeem (Heeze, Nijmegen, NL)
- P711 Restless legs syndrome and post polio syndrome: a case-control study**
A. Romigi, M.T. Desiato, F. Izzi, M. Pierantozzi, E. Evangelista, M. Albanese, C. Liguori, N. Mercuri, M. Nazzaro, B. Risina, V. Simonelli, F. Placidi (Naples, Rome, IT)
- P712 Blink reflex and brainstem auditory evoked response in patients with restless legs syndrome after pramipexole**
M. Sandelin, L. Leissner (Örebro, SE)
- P713 Brain iron accumulation with restless legs syndrome in a donor blood Spanish family**
R. Peraita-Adrados, A. Del Castillo, J. Gúzman de Villoria, M.J. Morán Jiménez, L. Lillo-Triguero, A. Guillem (Madrid, ES)
- P714 A cross sectional study of restless leg syndrome in Iranian hemodialysis patients**
F. Chavoshi, K. Sadeghniaat-Haghighi, M. Saraei, O. Zamani (Tehran, IR)
- P715 Comparison of restless legs syndrome patients and healthy controls: differences in biomarkers and comorbid conditions**
S. Virolainen, M. Partinen, T. Eller, V. Vasar (Tartu, EE; Helsinki, FI)
- P716 Predictors for the persistence of symptoms of restless legs syndrome after iron replacement**
S.Y. Youn, H.S. Shon, C.S. Lee, T. Kim, I.-Y. Yoon (Gyeonggi-do, Seoul, KR)
- P717 EEG high frequencies and hyperarousal during the sleep onset period in patients with restless legs syndrome**
R. Ferri, F.I. Cosentino, M. Manconi, F. Rundo, O. Bruni, M. Zucconi (Milan, Rome, Troina, IT; Lugano, CH)
- P718 Restless legs syndrome in the general population – how often is there an association with distress and disturbed sleep?**
B. Benediktsdottir, E.S.S. Arnardottir, E. Bjornsdottir, T. Gislason (Reykjavik, IS)
- P719 Late soleus response in restless legs syndrome**
Ö. Parlak, Öztura, B. Baklan (Izmir, TR)
- P720 Is autonomic nervous system involved in restless legs syndrome during wakefulness?**
F. Izzi, F. Placidi, A. Romigi, B. Lauretti, G.A. Marfia, M.G. Marciani, N.B. Mercuri, C. Rocchi (Rome, IT)
- P721 Respiratory-related leg movements: what is the evidence behind the rules**
S. Fulda, I. Zavalco, M. Manconi (Lugano, CH; Moscow, RU)
- P722 Predominant PLMs (periodic leg movements) in the first cycle of sleep in restless legs syndrome (RLS)**
A. Ghika, A. Kyrozi, D. Dikeos, E. Vagiakis, A. Bonakis (Athens, GR)
- P723 Periodic limb movements and sleep architecture in RLS patients**
M. Sieminski, M. Partinen (Gdansk, PL; Helsinki, FI)
- P724 Presence of restless leg syndrome and iron deficiency among third trimester of pregnant women in a Japanese urban clinic**
Y. Yamaguchi, H. Eto, Y. Oka (Ehime, Nagasaki, JP)
- P725 Association between impulsive-compulsive behaviors and REM sleep behavior disorder in Parkinson's disease: a video-polysomnographic study**
M.L. Fantini, M. Figorilli, P. Beudin, A. Marques, B. Debilly, P.P. Derost, M. Ulla, N. Vitello, T. Vidal, M. Puligheddu, A. Cicolin, F. Durif (Clermont-Ferrand, FR; Cagliari, Turin, IT)

- P726 Restless legs syndrome in Czech pregnant women: an epidemiological and genetic study**
D. Kemlink, Z. Šrůtková, L. Plchová, J. Pavlíčková, A. Pařízek, K. Šonka, S. Nevšimalová, B. Schormair, J. Winkelmann (Praha, CZ; Munchen, DE)
- P727 Comparison between automatic and visual scoring methods of muscle tone during rapid eye movement sleep in Parkinson's disease**
M.L. Fantini, M. Figorilli, A. Marques, P. Beudin, M. Puligheddu, F. Durif, R. Ferri (Clermont-Ferrand, FR; Cagliari, Troina, IT)
- P728 Prevalence and characteristics of periodic leg movements during sleep in the general population: the Hypnolaus study**
J. Haba-Rubio, H. Marti-Soler, D. Andries, N. Tobback, M. Tafti, R. Heinzer (Lausanne, CH)
- P729 Reversible restless legs syndrome in a patient treated with successful kidney transplantation**
M. Albanese, F. Placidi, A. Romigi, C. Liguori, A. Marchi, M.G. Marciani, N.B. Mercuri, F. Izzi (Rome, IT)
- P730 Rhythmic masticatory muscle activity frequency in children**
N. Huynh, E. Desplats, A. Bellerive (Montreal, CA)
- P731 Polysomnographic study in symptomatic Huntington Disease**
C. Piano, A. Losurdo, D. Viridis, I. Quintiliani, M. Solito, A.R. Bentivoglio, P. Cortelli, G. Della Marca (Bologna, Rome, IT)
- P732 Sleep disturbances in essential tremor and Parkinson's disease: a polysomnographic study**
B. Barut, N.F. Tascilar, A. Varol (Zonguldak, TR)
- P733 Symptom severity of primary restless legs syndroms is not determined by serum ferritin level**
W.C. Shin, S. Byun, K.J. Hwang (Icheon, Seoul, KR)
- P734 Assessment of severity and therapeutical response in 70 patients with idiopathic and symptomatic form of restless leg syndrome**
A. Simeonova, N. Neykov, V. Toncheva, I. Stoyanov, G. Savov, V. Vutova, N. Mihnev, M. Mihov, E. Dimitrova, P. Dacheva, D. Jancheva, I. Staikov (Sofia, BG)
- P735 Predictors of multiple sleep latency test findings in Parkinson's disease**
S.A.M. Winkler, R. Taddei Garcia, E. Werth, C. Baumann, P. Valko (Zurich, CH)
- P736 REM sleep behavior disorder in Parkinson's disease as a predictor of cognitive decline**
E.A. Lyashenko, M.G. Poluektov, O.S. Levin (Moscow, RU)

16.15 – 17.45 Psychiatric and behavioural disorders and sleep Poster Exhibition

- P737 Sleep patterns in adults with a diagnosis of high-functioning autism spectrum disorder: a preliminary analysis**
E. Baker, A. Richdale (Bundoora, AU)
- P738 Sleep complaints in adolescent depression: one year naturalistic follow-up study**
A.S. Urrila, L. Karlsson, O. Kiviruusu, M. Pankakoski, M. Pelkonen, T. Strandholm, M. Marttunen (Helsinki, FI)
- P739 The subjective effect of quetiapine monotherapy on sleep and daytime sleepiness in acute manic patients**
B.-H. Yoon, W.-M. Bahk, K.-J. Min, J.G. Lee, S.-Y. Lee, D.-I. Jon, Y.-J. Kwon, K.H. Lee, S.-K. Chung, M.-D. Kim (Anyang, Busan, Cheonan, Gyeongju, Iksan, Jeju, Jeonju, Naju, Seoul, KR)

- P740** **Obstructive sleep apnea severity, heart rate variability and depression symptoms**
N.-S. Shams-Hosseini, O. Aminian, K. Sadeghniaat-Haghighi (Tehran, IR)
- P741** **Sleep duration and serotonin transporter promoter gene polymorphism in the Palanga community cohort**
J. Harro, A. Podlipskyte, M. Vaht, G. Varoneckas (Tartu, EE; Palanga, LT)
- P742** **Sleep structure and emotional memory processing in police officers and combat veterans with PTSD**
W.F. Hofman, M. de Boer, M.J. Nijdam, R.A. Jongedijk, M. Olf, L.M. Talamini (Amsterdam, Diemen, NL)
- P743** **A meta-analysis and model of the relationship between sleep and depression in adolescents**
N. Lovato, M. Gradisar (Adelaide, AU)
- P744** **The effects of acupuncture treatment on sleep quality and on emotional measures among individuals living with schizophrenia**
I. Haimov, B. Bloch, L. Vadas, S. Ravid, I. Kremer, A. Reshef (Afula, Emek Yezreel, IL)
- P745** **Chronic sleep reduction and psychopathology symptoms in adults with high-functioning autism spectrum disorder**
E. Baker, A. Richdale (Melbourne, AU)
- P746** **Attention deficit hyperactivity symptoms, sleepiness and near-misses driving accidents among a population of French highway drivers**
S. Bioulac, J. Tailard, M.-A. Quéra-Salva, P. Sagaspe, P. Philip (Bordeaux, Garches, FR)
- P747** **Sleep spindles as biomarkers of memory dysfunction in schizophrenia**
R. Göder, S. Weinhold, A. Graf, F. Ballhausen, A. Prehn-Kristensen, K. Junghanns, P.C. Baier (Kiel, DE)
- P748** **Slow wave sleep, memory and long-term outcome in patients with schizophrenia**
R. Göder, C. Bethke-Jänicke, S. Weinhold, P.C. Baier (Kiel, DE)
- P749** **Poor sleep is a potential risk factor for aggressive/violent behaviour**
J. Kamphuis, M. Lancel (Assen, NL)
- P750** **Sleep, depression and physical illness in Korean elderly**
B. Nam, B. Lee (Chungju, KR)
- P751** **Subjective sleep quality and excessive daytime sleepiness in attention-deficit/hyperactivity disorder in adults**
C. Sauter, E. Ahlers, M. Colla, D. Langner, L. Gentschow, H. Danker-Hopfe (Berlin, DE)
- P752** **Sleep disturbances and psychotic-like experiences in a student population**
K. Porcheret, B. Sheaves, C.A. Espie, R.G. Foster, D. Freeman, P.J. Harrison, K. Wulff, G.M. Goodwin (Oxford, GB)
- P753** **PTSD associated effects on obstructive sleep apnea and restless legs in the survivors from the Norwegian terror 22/7 2011 attack on Utøya**
J. Gronli, O.T. Ousdal, A.M. Milde, S. Pallesen, T. Endestad, A.M. Melinder (Bergen, Oslo, NO)
- P754** **High rates of psychiatric comorbidity in narcolepsy: findings from the burden of narcolepsy disease (BOND) study of 9,312 patients in the United States**
J. Black, N. Reaven, S. Funk, K. McGaughey, M. Ohayon, C. Guilleminault, C. Ruoff (La Canada, Palo Alto, San Luis Obispo, US)
- P755** **Effects of bright light therapy on the hospital employees with depressive symptoms and/or daytime sleepiness**
J. Miura, S. Yokouchi, T. Yuasa, S. Yamaguchi, T. Matsuki, T. Ashie, K. Yamagami, Y. Aizu, H. Sasaki (Muroran, JP)

- P756 Adolescents diagnosed with depression and their unaffected siblings show a different topographical distribution of sleep slow wave activity compared to healthy controls**
N. Tesler, M. Gerstenberg, A. Preiss, M. Franscini, O.G. Jenni, S. Walitza, R. Huber (Zurich, CH)
- P757 The effect of total sleep time on cognitive conflict adaptation in healthy adolescents**
S. Reyes, C. Algarín, B. Lozoff, P. Peirano (Santiago, CL; Ann Arbor, US)
- P758 Insomnia and personality disorders: a pilot study**
S. Marelli, A. Galbiati, E. Giora, L. Giarolli, A. Gasperi, M. Zucconi, L. Ferini-Strambi (Milan, IT)
- P759 Examining the association between basic psychological need satisfaction and sleep-related outcomes in clinical populations**
R. Campbell, M. Vansteenkiste, L.M. Delesie, A.N. Mariman, B. Soenens, E. Tობback, D.P. Vogelaers (Ghent, BE)

16.15 – 17.45 Sleep and aging

Poster Exhibition

- P760 Nocturia is associated with poor sleep quality in elderly patients with diabetes mellitus, hypertension and hyperlipidemia**
G.S.H. Chiang, B.L.H. Sim, J.J.M. Lee, J.H.M. Quah (Singapore, SG)
- P761 Association of sleep complaints with cardiovascular and all-cause mortality in the Palanga community cohort in the period of 2003-2013**
A. Podlipskyte, J. Andruskiene, A. Martinkenas, G. Varoneckas (Palanga, LT)
- P762 Prevalence of sleep complaints in the Palanga community cohort in the period of 2003-2013**
J. Andruskiene, A. Podlipskyte, A. Martinkenas, G. Varoneckas (Palanga, LT)
- P764 Hormonal-metabolic parameters in perimenopausal women with sleep disorders**
N. Semenova, I. Madaeva, L. Kolesnikova, O. Berdina, E. Solodova, L. Sholokhov (Irkutsk, RU)
- P765 Retrospective study of sleepiness and vigilance in OSAS older patients**
P. Deblois, H. Khemliche, N. Zrek, F. Bour, M.-C. Ouayoun (Gonesse, Senlis, Sevran, FR)
- P766 Sleep complaints and metabolic syndrome in an elderly population: the three-city study**
I. Jaussent, T. Akbaraly, A. Besset, M. Bertrand, P. Barberger-Gateau, K. Ritchie, J.E. Ferrie, M. Kivimaki, Y. Dauvilliers (Bordeaux, Montpellier, FR; London, GB)
- P767 Effect of age on the macro- and microstructure of sleep in women**
J. Schwarz, E. Lindberg, G. Gruber, H. Fischer, J. Theorell-Hagloew, T. Akerstedt (Stockholm, Uppsala, SE; Vienna, AT)
- P768 What does good sleep mean in terms of macro and microstructure of sleep in women and how does age affect this relation?**
T. Åkerstedt, E. Lindberg, G. Gruber, J. Theorell-Haglöw, J. Schwarz (Stockholm, Uppsala, SE; Vienna, AT)
- P769 Polysomnographic data in patients with isolated memory complaints or mild cognitive impairment**
P. Sagaspe, J. Taillard, C. Chauton, C. Berthomier, M. Brandewinder, H. Amiéva, J.-F. Dartigues, P. Philip (Bordeaux, Paris, FR)
- P770 The feasibility of trialling non-pharmacological interventions for improving the sleep of community dwelling people with dementia**
R.H. Gibson, P.H. Gander, A. Dowell, L.M. Jones (Wellington, NZ)

- P771 Relationship between age and duration event number respiratory syndrome in patients with sleep apnea-hypopnea**
P.M. Lazo Meneses, E. Mañas Baena, C. Gotera Rivera, D. Barrios Barreto, J. García Leaniz (Madrid, ES)
- P772 Fatigue/sleepiness and important aspects of sleep restoration improve across aging**
T. Åkerstedt, L. Alfredsson, P. Westerholm, H. Fischer, L.-G. Nilsson, M. Nordin (Stockholm, Umeå, Uppsala, SE)
- P773 Self-reported sleep satisfaction in elderly predicts self-reported sleep satisfaction over 18 but not over 48-months**
M. Ulander, A. Brostrom, U. Alehagen, Å. Wahlin, P. Johansson (Jönköping, Linköping, SE)
- P774 Correlates of self-reported short sleep, long sleep and sleep sufficiency index in home-dwelling elderly subjects**
M. Ulander, A. Brostrom, Å. Wahlin, U. Alehagen, P. Johansson (Jönköping, Linköping, SE)
- P775 Fall accidents and actigraphy in nursing home**
J. Merilahti, P. Viramo, I. Korhonen (Oulu, Tampere, FI)
- P776 Sleep microstructure in frontotemporal dementia is equally or even more disturbed compared to that in Alzheimer's disease: a sleep spindle study**
N.-T. Economou, P. Ktonas, A. Bonakis, A. Konsta, T. Paparrigopoulos, D. Dikeos, E. Vagiakis, S. Papageorgiou, E.C. Ventouras (Athens, GR)

16.15 – 17.45 Healthcare services, research and education Poster Exhibition

- P777 Characteristics and trends in hypnotics consumption in the largest health care in Israel**
O. Marom, G. Rennart, G. Pillar (Haifa, IL)
- P778 No law for sleep. Preliminary results from a national survey about sleep patterns in portuguese lawyers**
M. Meira e Cruz, I. Duarte (Lisbon, PT)
- P779 Self perceived sleepiness and risk of obstructive sleep apnea syndrome among cuban health related professionals**
M. Meira e Cruz, I. Duarte, A. Gallardo, Y. Rosales-Mesa (Lisbon, PT; Havana, Santa Clara, CU)
- P780 An educational intervention to mitigate sleepiness in road transport**
M. Sallinen, M. Pylkkönen, H.-K. Hyvärinen, S. Puttonen, M. Sihvola (Helsinki, FI)
- P781 Difficulties in treating sleep problems reported by counsellors working with survivors of sexual assault**
J. Darvell, D. Bruck, G. Kennedy (Melbourne, AU)
- P782 How is tatarstan sleeping?**
E.Z. Yakupov, Y.V. Troshina (Kazan, RU)
- P783 Reduction of intensive care unit (ICU) simulated noise's effect on the nap by earplugs**
M. Nakai, H. Arakawa, Y. Kojima, T. Kobayashi, O. Mandai (Ashikaga-shi, Fukaya-shi, JP)
- P784 Sleep disturbances, daytime sleepiness and symptoms of sleep apnea syndrome in first year medical students**
O.V. Lyshova, V.F. Lyshov (Voronezh, RU)
- P785 Sleep and health related quality of life in Georgian population**
N. Darchia, M. Eliozishvili, M. Supatashvili, N. Oniani, T. Basishvili, I. Sakhelashvili, K. Cervena (Tbilisi, GE; Bremen, DE; Geneva, CH)

- P786 Alertness, chronic fatigue, and actigraphic sleep between working and off days among nurses under fixed shifts**
W.-C. Liao, S.-C. Chung, C.-P. Kuo (Taichung, Taoyuan, TW)
- P787 Diagnostic models for obstructive sleep apnea in the Australian community: observations from pharmacy-based CPAP providers**
C.A. Hanes, K.K.H. Wong, B. Saini (Sydney, AU)
- P788 Short sleep is associated with increased hospitalization episodes: results from the 2005-2006 US National Health and Nutrition Examination Survey (NHANES)**
N. Covassin, K. Sahakyan, F. Lopez-Jimenez, V.K. Somers (Rochester, US)
- P789 The somnonet portal – an open source online tool for assessing quality of structure and process in sleep laboratories**
A. Rodenbeck, T. Penzel, A. Blau, S. Canisius, J. Drepper, M. Glos, M. Harbacj, R. Siewert, M. Smith, J. Wu (Berlin, Hannover, DE)
- P790 What do UK junior doctors' know about sleep disorders? A systematic literature review**
S. Khan (Guildford, GB)
- P791 Is the quality of portable sleep monitoring the same using hook-up video instructions as for in-clinic hook-up instructions?**
A.G. Sigurðardóttir, T. Gíslason, E.S. Arnardóttir (Reykjavík, IS)
- P792 Sleep quality in Sweden: are there differences from north to south and between native and foreign born residents?**
A. Nizamani, M. Hunsberger, G. Bader (Gothenburg, SE)
- P793 Large scale sleep evaluation made possible by mobile technology and fitness heart rate monitors**
A. Baharav, S. Eyal (Petach Tiqva, IL)
- P794 How bad is the sleep-wake cycle on first year medical students?**
A.M. Lima, F.F. Kolodiuk, L.G.F. Ferreira, M.A.L. Miguel, J.F. Araujo (Natal, BR)

- P795 The participation of chaperone Hsp70 in sleep modulation in rats**
V. Simonova, M. Guzeev, I. Ekimova, Y. Pastukhov (Saint Petersburg, RU)
- P796 Sleep and wakefulness duration and distribution are regulated by MAPK2 and MAPK3 phosphorylation**
C. Mikhail, A. Vaucher, M. Tafti (Lausanne, CH)
- P797 Changes in potassium channel genes expression during spontaneous sleep-wake cycle and sleep deprivation**
O. Ventskovska, H.-K. Wigren, T. Stenberg (Helsinki, FI)
- P798 The effect of maternal sleep on epigenome of newborn**
A.-J. Ämmälä, J. Alasaari, J. Liuhanen, J. Paavonen, O. Saarenpää-Heikkilä, T. Stenberg, A. Kylliäinen, P. Pölkki, A. Metspalu, T. Paunio (Helsinki, Kuopio, Tampere, FI; Tartu, EE)
- P799 Circadian clock genes, insomnia, sleepiness and shift work disorder**
E. Thun, S. Le Hellard, T. Osland, B. Bjorvatn, B.E. Moen, N. Magerøy, S. Pallesen (Bergen, NO)
- P800 Epigenetic fingerprint of stress in a Finnish shift-working occupational cohort**
J. Alasaari, A.-J. Ämmälä, M. Kivimäki, J. Vahtera, M. Härmä, S. Puttonen, K. Silander, V. Salomaa, M. Perola, T. Paunio (Helsinki, FI)
- P801 Genetic influences on total sleep duration in babies at 8-months: preliminary findings**
K. Kantojärvi, J. Jaatela, O. Saarenpää-Heikkilä, J. Paavonen, A. Kylliäinen, P. Pölkki, T. Porkka-Heiskanen, T. Paunio (Helsinki, Kuopio, Tampere, FI)
- P802 In vitro generation of dynorphin, NARP and MCH expressing neurons from mouse fibroblasts**
A. Seifinejad, M. Tafti (Lausanne, CH)

- P803 Uncorrelated sleep-related activity in the avian hippocampus and nidopallium**
J. van der Meij, N.C. Rattenborg, T.V. Smulders, G.J.L. Beckers (Seewiesen, DE; Newcastle, GB; Utrecht, NL)
- P804 Peripubertal diet-induced obesity impairs sleep quality through changes in the dopaminergic system during aging in mice**
M. Gazea, A.V. Patchev, E. Leidmaa, C. Flachskamm, O.F. Almeida, M. Kimura (Munich, DE)
- P805 The Gln460arg polymorphism of the P2RX7 gene affects human sleep**
M. Adamczyk, E. Friess, M. Uhr, A. Steiger (Munich, DE)
- P806 Artefact correction of sleep electroencephalographic recordings during arterial spin labelling-magnetic resonance imaging based on independent component analysis**
L. Tüshaus, T. Koenig, M. Kottlow, P. Achermann (Bern, Zurich, CH)
- P807 The associations between adolescent sleep, diurnal cortisol patterns and cortisol reactivity to dexamethasone suppression test**
A.-K. Pesonen, S. Martikainen, K. Räikkönen (Helsinki, FI)

- P808 Modulation of hypothalamic MCH-expressing neurons by pharmacogenetic tools strongly alters the sleep-waking cycle in mice**
C.G. Varin, S. Arthaud, Y. Chérasse, M. Lazarus, T. Gallopin, P.-H. Luppi, P. Fort (Lyon, Paris, FR; Tsukuba, JP)
- P809 Effects of rocking movements on sleep onset and memory performance**
X. Omlin, F. Crivelli, L. Heinicke, J. Skorucak, A. Malafeev, A. Fernandez, R. Riener, P. Achermann (Zurich, CH)
- P810 Corticotropin-releasing hormone receptors-2 mutation in the dorsal raphe neurons increases sleep and stress-coping behaviour in mice**
D. Kumar, A. Kolarz, C. Flachskamm, J.M. Deussing, M. Kimura (Munich, DE)
- P811 Comparison of transcranial magnetic stimulation evoked electroencephalography potentials between waking and non-rapid eye movement sleep states**
M. Vasser, J. Aru, T. Bachmann (Tartu, EE)
- P812 Defining the role of specific neuronal populations of the basal forebrain in sleep-wake behaviour using opto-dialysis: a novel method combining optogenetics and in vivo microdialysis**
J.C. Zant, T. Kim, A. Kalinchuk, C. Yang, R.E. Brown, J.M. McNally, S. Thankachan, J.T. McKenna, R.E. Strecker, R.W. McCarley, R. Basheer (Boston, Brockton, US)
- P813 Repetitive activations of lateral and perifornical hypothalamic regions elevate CSF OrexinA content and fasten sleep-wakefulness recovery from experimentally induced comatose state**
N. Nachkebia, E. Chkhartishvili, O. Mchedlidze, N. Maglakelidze, S. Dzadzamia, V. Tsomaia, M. Babilodze, E. Chijavadze (Tbilisi, GE)
- P814 Characterisation of the role of extrasynaptic GABAA receptors in sleep and mood regulation in a rodent model**
G.M. Stenson, M. Nollet, R. Winsky-Sommerer (Guildford, GB)
- P815 Repetitive activation of lateral and perifornical hypothalamus regions elevate CSF OrexinA content and fasten recovery of normal sleep cycles from deep anesthesia induced sleep**
N. Maglakelidze, E. Chkhartishvili, E. Chijavadze, S. Dzadzamia, M. Babilodze, O. Mchedlidze, N. Nachkebia (Tbilisi, GE)
- P816 State-dependencies of auditory evoked potentials during NREM sleep disclose their neurophysiological origins**
A. Karashima, M. Nakao, N. Katayama (Sendai, JP)
- P817 Indications that the EphA4 receptor regulates sleep in mice**
M. Freyburger, A. Pierre, E. Belanger-Nelson, V. Mongrain (Montreal, CA)

17.15 – 18.45 Comparative and evolutionary studies

Poster Exhibition

- P818 Bird-like propagating sleep-related brain activity in Nile crocodiles**
R.K. Tisdale, J.A. Lesku, G.J.L. Beckers, N.C. Rattenborg (Seewiesen, DE; Melbourne, AU; Utrecht, NL)
- P819 Sleep disorders in population in Novosibirsk (Russia)**
I. Gagulin, V. Gafarov, E. Gromova, D. Panov (Novosibirsk, RU)
- P820 Insomnia symptoms and all-cause and cardiovascular mortality: a prospective register-based study among Finnish and Lithuanian adults**
T. Lallukka, J. Andruskiene, A. Podlipskyte, G. Varoneckas, O. Rahkonen (Helsinki, FI; Kaunas, LT)
- P821 Investigation about the cultural context in preferred bed position: an ethological approach**
P. Brugailleres, J.F. Araujo (Rennes, FR; Natal, BR)

- P822 The timing of daytime sleep episodes between 12-h night shifts does not affect neurobehavioural performance**
A. Kosmadopoulos, X. Zhou, G.D. Roach, D. Darwent, C. Sargent (Wayville, AU)
- P823 Noninvasive detection of sleep/wake changes in orexin/ataxin-3 transgenic narcoleptic mice across the disease onset**
Y. Sagawa, M. Sato, S. Sato, A. Imanishi, T. Kanbayashi, T. Shimizu, S. Nishino (Akita, JP; Palo Alto, US)
- P824 NREM sleep is increased in high-aggressive, but not in non-aggressive rats by an immune challenge**
L. Imeri, L. Carnevali, S. Bianchi, A. Sgoifo (Milan, Parma, IT)
- P825 Evoked K-complexes as a dynamic interplay between cortical wake-like excitation, large-scale resetting hyperpolarization, and thalamic patterning: a high-density EEG study of human NREM sleep**
D. Menicucci, M. Laurino, A. Piarulli, F. Mastorci, P. Allegrini, A. Gemignani (Pisa, IT)
- P826 Stop and revive? The effectiveness of nap and active rest breaks for reducing drivers sleepiness**
C.N. Watling, S.S. Smith, M.S. Horswill (Brisbane, AU)
- P827 On-road driver sleepiness: what are Australian drivers experiences and awareness of sleepiness while driving?**
C.N. Watling, A. Wilson, K.A. Armstrong, S.S. Smith (Brisbane, AU)
- P828 Academic performances in adolescents with behaviorally-induced insufficient sleep syndrome**
S.J. Kim, J. Park, S. Kim, Y.J. Lee (Seoul, KR)
- P829 Daytime nap: restores performance parameters and is not affected by mental fatigue**
A.N. Puchkova, O.N. Tkachenko, A.O. Taranov, V.B. Dorokhov (Moscow, RU)
- P830 The morningness-eveningness preference and the temperament and character in Koreans without any Axis I psychiatric disorder**
I. Sohn (Uiwang, KR)
- P831 What is the relationship between natural variations in sleep duration and emotion recognition ability?**
T. Sundelin, P. Laukka, H. Fischer, J. Axelsson (Stockholm, SE)
- P832 An experimental study comparing the effects of reading on an Ipad or in a book on polysomnographic-assessed sleep**
I.K. Byrkjedal, S. Pallesen, B. Bjorvatn, Ø.O. Nødtvedt, J. Grønli (Bergen, NO)
- P833 What makes adolescents suicidal? The role of sleep**
M. Zschoche, A.A. Schlarb (Bielefeld, DE)
- P834 Cage exchange does not disturb sleep in the rat on a 24-h basis**
F. Del Vecchio, R. Amici, M. Cerri, A. Di Cristoforo, T. Hitrec, M. Luppi, E. Perez, G. Zamboni (Bologna, IT)
- P835 Sleep and brain activity after early life stress in female rats**
J. Mrdalj, S. Pallesen, R. Ursin, J. Grønli (Bergen, NO)
- P836 Validating and extending the three process model (TPM) of alertness in airline operations**
M. Ingre, W. Van Leeuwen, T. Klemets, C. Ullvetter, S. Hough, G. Kecklund, D. Karlsson, T. Åkerstedt (Arlanda, Göteborg, Norrköping, Stockholm, SE)
- P837 Greek financial crisis: from loss of money to loss of sleep?**
E. Nena, D. Tsavlis, D. Kougkas, N. Papanas, T.C. Constantinidis, P. Steiropoulos (Alexandroupolis, GR)

- P838 The interplay between habitual sleep duration and sleep need in risky decision-making**
E.Y.W. Lee, K.N.T. Lau, M.L. Wong, C.H. Tseng, E.Y.Y. Lau (Hong Kong, HK)
- P839 Sleep and risk of accidents and injuries of adolescents attending classes in two rotating shifts**
B. Radosevic-Vidacek, A. Koscec, M. Bakotic (Zagreb, HR)
- P840 Sleeping with dogs – results of an internet-based survey**
G. Kloesch, M. Kemethofer, L. Wallis, S. Seidel, J.P. Dittami (Vienna, AT)
- P841 Absence of rapid eye movements during sleep in zebrafish**
K. Karlsson, B.B. Arnason, H. Þorsteinsson (Reykjavik, IS)

17.15 – 18.45 Sleep deprivation 2

Poster Exhibition

- P842 Mechanically controlled REM sleep deprivation yields non-REM sleep fragmentation and selectively reveals REM sleep-related brain structures in mice**
M. Kimura, M. Gazea, D. Kumar, S. Voule, C. Flachskamm (Munich, DE)
- P843 Sleep slow-wave activity predicts changes in human cortical excitability during extended wakefulness**
G. Gaggioni, J.Q.M. Ly, D. Coppieters't Wallant, V. Muto, C. Borsu, S. Papachilleos, A. Brzozowski, S. Sarasso, M. Rosanova, S.N. Archer, P. Maquet, D.-J. Dijk, C. Phillips, M. Massimini, G. Vandewalle, S.L. Chellappa (Liège, BE; Milano, IT; Guildford, GB)
- P844 Modification of sleep architecture, microsleeps, subjective sleepiness and maintenance of wakefulness capacities during a week of sleep restriction**
C. Bougard, A. Rabat, G. Dispersyn, P. Arnal, C. Drogou, F. Sauvet, P. Van Beers, M. Guillard, V. Bayon, D. Léger, M. Chennaoui (Bretigny sur Orge, Paris, FR)
- P845 Driving while fatigued in slippery road conditions – a neglected issue**
I. Radun, M. Wahde, M. Ingre, J. Radun, O. Benderius, G. Kecklund (Göteborg, Stockholm, SE; Helsinki, FI)
- P846 Sleep deficit and sleep problems, the main concern to shift workers with disruptive schedules. A fatigue issue?**
C. Reis, C. Mestre, T. Paiva (Lisbon, PT)
- P847 Sleep and fatigue study in flight attendants of a Portuguese commercial airline**
M. Serra Brandão, T. Paiva, H. Rebelo Pinto (Lisboa, PT)
- P848 Vascular response to 1-week sleep restriction. A metabolic response?**
M. Chennaoui, C. Drogou, C. Bougard, P. Arnal, G. Dispersyn, P. Van Beers, M. Guillard, C. Bourrilhon, A. Rabat, B. Faraut, D. Léger, F. Sauvet (Bretigny sur Orge, Paris, FR)
- P849 Objective sleepiness in young and older adults during 3-weeks of chronic sleep restriction**
K.-M. Zitting, S.W. Cain, M.Y. Münch, W. Wang, J.M. Ronda, C.A. Czeisler, J.F. Duffy (Boston, US)
- P850 Sleep loss negatively affects employability and perceived leadership skills**
T. Sundelin, J. Axelsson (Stockholm, SE)
- P851 Sleep deprivation reduces the long latency startle response in zebrafish**
A. Lintulahti, V. Aho, M. Vainikka, H. Puttonen, P. Panula, T. Porkkanen-Heiskanen, H.-K. Wigren (Helsinki, FI)
- P852 Acute total sleep deprivation potentiates cocaine-induced hyperlocomotion in mice**
L.F. Berro, R. Santos, A.W. Hollais, R. Wuo-Silva, D.F. Fukushima, E. Mári-Kawamoto, J.M. Costa, T.F. Trombin, C.L. Patti, S.B. Grapiglia, S. Tufik, M.L. Andersen, R. Frussa-Filho (São Paulo, BR)
- P853 Effects of sleep deprivation on behavioural laterality in mice**
N. Cui, R. Dore, V.V. Vyazovskiy (Oxford, GB)

- P854 Efficient paradoxical (REM) sleep homeostatic regulation in mice: reports on sleep architecture and neuronal activation**
S. Arthaud, C. Varin, P.-A. Libourel, P. Fort, P.-H. Luppi, C. Peyron (Lyon, FR)
- P855 Does more sleep matter? Differential effects of NREM- and REM-dominant sleep on sleepiness and vigilance**
D. Neu, O. Mairesse, J. Newell, P. Verbanck, P. Peigneux, G. Deliens (Brussels, BE)
- P856 Changes in anxiety, affect, and emotion regulation among sleep-restricted healthy adolescents: an experimental investigation**
R. Reddy, C. Jackson, D. Talavera, C.A. Alfano (Houston, US)
- P857 Chronic partial sleep deprivation affects event-related potentials evoked by a saccadic task**
H. Oginska, E. Beldzik, A. Domagalik, M. Fafrowicz, T. Marek (Krakow, PL)
- P858 Sleepiness at the wheel in European truck drivers**
R. Sauvagnac, F. Barbot, S. Hartley, I. Vaugier, P. Philip, M.-A. Quera-Salva (Bordeaux, Garches, FR)
- P859 Severe sleepiness and insufficient sleep in connection with different shift types: results from a field study in road freight transport**
M.M. Pylkkönen, M. Sallinen, H.K. Hyvärinen, S. Puttonen, M. Sihvola (Helsinki, FI)
- P860 Sleepiness and vigilance during on-the-road driving: a behavioral and physiological investigation of time on task and sleep deprivation effects**
J. Perrier, S. Jongen, E. Vurman, M.L. Bocca, J.G. Ramaekers, A. Vermeeren (Maastricht, NL; Caen, FR)
- P861 Sleep insufficiency among Korean adolescent students: from 9th Korea Youth Risk Behavior Web-based Survey (KYRBS) 2013**
P. Song, K.-Y. Jung (Gyeonggi-do, Seoul, KR)
- P862 Inter-individual differences in the tolerance to sleep deprivation: the effects of circadian flexibility**
N. Marcoen, N. Pattyn, M. Vandekerckhove, O. Mairesse (Brussel, Brussels, BE)
- P864 Individual variability of EEG patterns in drowsiness**
O.N. Tkachenko (Moscow, RU)
- P865 Obstructive sleep apnea syndrome and sleep disturbances among Brazilian airline pilots**
E.C. Marqueze, A.C. Nicola, D.H. Diniz, C.R. Moreno (Santos, São Paulo, BR)
- P866 Sleep-related crashes in urban, low speed environments**
A. Filtness, K. Armstrong, A. Watson (Kelvin Grove, AU)

17.15 – 18.45 Sleep disorders – Breathing 3

Poster Exhibition

- P867 Decrease of respiratory events in patients with OSAS, using a mandibular advancement device (MAD), assessed with split night polysomnography, in a Mexican population**
E.P. García-Campos, A. Labra, L. Galicia-Polo, R. Haro-Valencia, F. Sánchez-Narváez, L. Correa (México, MX; Boston, US)
- P868 Non-intrusive apnoea / hypopnoea detection system via graph-signal analysis of Microsoft Kinect captured depth video**
C. Yang, Y. Mao, G. Cheung, V. Stankovic, K. Chan (Glasgow, GB; Tokyo, JP; Sydney, AU)
- P869 Prevalence and risk factors of snoring habitual among the Saudi population**
S. Wali, B. Abalkhial, H. Al-Motary, I. Ahmad, A. Krayem (Jeddah, SA)

- P870 Obstructive sleep apnea, hypothyroidism and cognition**
E. Di Coscio, M. Maestri, L. Carnicelli, I. Ricco, C. Pagni, R. Silvestri, F. Aghini Lombardi, G. Tognoni, U. Bonuccelli, E. Bonanni (Messina, Pisa, IT)
- P871 Persistent sleepiness after CPAP treatment in obstructive sleep apnea patients**
M. Pujol, F. Cruz, A. Guardia, J. March, F. Barbé (Lleida, ES)
- P872 Intermittent hypoxia induced genioglossal contractile dysfunction can be alleviated by adiponectin**
X. Zhang (Nanjing, CN)
- P873 Adiponectin protects the genioglossus of rats against chronic intermittent hypoxia-induced injury via inhibition of endoplasmic reticulum stress**
X. Zhang (Nanjing, CN)
- P874 Treatment decisions among 175 participants of Akershus sleep apnoea project (ASAP) with obstructive sleep apnoea**
H. Hrubos-Strøm, S. Mitic, E. Lie (Lørenskog, NO)
- P875 The role of compliance with positive airway pressure use on blood pressure in patients with obstructive sleep apnea**
I. Bouloukaki, K. Giannadaki, C. Mermigkis, E. Mauroudi, N.M. Siafakas, S.E. Schiza (Heraklion, GR)
- P876 A non-invasive technique to detect respiratory effort during sleep**
G. Brouwers, N. Vandenbussche, H. van Dijk, S. Overeem, D. Pevernagie, P. Cluitmans (Eindhoven, Heeze, NL)
- P877 A case-control study: the influence of smoking intensity on quality of sleep in a population of obstructive sleep apnea syndrome patients versus habitual snorers**
O.C. Deleanu, D. Pocora, R. Ulmeanu, F.D. Mihaltan, S. Mihaicuta (Bucharest, Oradea, Timisoara, RO)
- P878 Electrophysiological evaluation of the relationship between the levels of body mass index and apnea hypopnea index**
M. Kayabekir, Ö. Topaloğlu (Erzurum, Izmir, TR)
- P879 Relationship between symptoms of sleep disordered breathing and severity of obstructive sleep apnoea in a reference sleep center**
T.M. Jonassen, I.W. Saxvig, S. Gulati, H. Aurlien, B. Bjorvatn, T.M.L. Eagan, S. Lehmann (Bergen, NO)
- P880 Nasal symptoms and dimensions measured by acoustic rhinometry in relation to PAP use in the Icelandic sleep apnea cohort study**
S. Juliusson, S. Gudmundsdottir, E.S. Arnardottir, B. Benediktsdottir, A.I. Pack, T. Gislason (Reykjavik, IS; Philadelphia, US)
- P881 The influence of abdominal fat distribution measured by DEXA on the severity of sleep apnea in postmenopausal women**
Z. Szakacs, M. Gyorfi (Budapest, HU)
- P882 HMPAO SPECT with acetazolamid challenge predicts the need of early intervention in OSAHS cases with normoxaemia**
I. Bernath, Z. Szakacs (Budapest, HU)
- P883 Long term follow-up reveals increased risk of mortality and morbidity in supine dominant OSA patients**
A. Kulkas, A. Muraja-Murro, P. Tiihonen, E. Mervaala, J. Töyräs (Kuopio, Seinäjoki, FI)
- P884 Is HLA-DRB1*03 a risk factor for obstructive sleep apnoea syndrome?**
L. Silva, C. Carvalho, D. Cunha, J. Lopes, J. Ramalheira, B. M Silva, P. Costa, A. Martins da Silva (Gandra, Porto, PT)
- P886 Evaluation of hypertension and obesity in the severity of the syndrome of obstructive sleep apnea in 100 patients**
A.G. Simeonova, I. Staikov, N. Neykov, D. Qncheva, M. Cholakova, P. Dacheva, E. Dimitrova, N. Mihnev, M. Mihov, I. Stoyanov, V. Vutova (Sofia, BG)

- P887 Excessive daytime sleepiness and risk of obstructive sleep apnea in patients with chronic kidney disease on hemodialysis**
I.R. Santos, N.T. Fonseca, J.J. Urbano, N. Apostolico, R.G. Almeida, E.F. Oliveira, I.S. Dias, S.R. Nacif, P.C. Bosio, L.V.F. Oliveira (Ribeirão Preto, São Paulo, BR)
- P888 Obstruction severity in diagnostics of sleep apnea**
A. Muraja-Murro, A. Kulkas, S. Kupari, T. Hukkanen, P. Tiihonen, E. Mervaala, J. Töyräs (Kuopio, Seinäjoki, FI)
- P889 Vigilance decrements and erectile dysfunction in patients with sleep apnea**
R. Popp, Y. Kleemann, T. Wetter, S. Budweiser, R. Jörres, W. Wieland, M. Pfeifer, M. Arzt (Donaustauf, Munich, Regensburg, Rosenheim, DE)
- P890 Serum vitamin D levels are reduced in obstructive sleep apnea patients and increase after continuous positive airway pressure therapy**
C. Liguori, A. Romigi, N.B. Mercuri, F. Izzì, M. Albanese, A. Cordella, E. Tarquini, A. Nitti, M.G. Marciani, F. Placidi (Rome, IT)
- P891 Respiratory and non-respiratory arousals induce changes in intracranial oxygenation in sleep disordered patients measured with near-infrared spectroscopy**
J. Toppila, K. Kotilahti, T. Näsi, J. Virtanen, I. Nissilä, T. Salmi, A. Bachour (Espoo, Helsinki, FI)
- P892 OSAS diagnosis and CPAP treatment in relation to cardiovascular disease (CVD). An assessment based on health economics**
G. Trakada, N.-T. Economou, E. Nena, A. Trakada, P. Zarogoulidis, P. Steiropoulos (Alexandroupoli, Athens, Pireus, GR; Essen, DE)
- P893 Reduced brain grey matter density is associated with lower oxygen saturation during sleep and vascular burden**
A.-A. Baril, K. Gagnon, C. Arbour, H. Blais, C. Lafond, J. Montplaisir, J.-F. Gagnon, N. Gosselin (Montréal, CA)
- P894 Excessive daytime sleepiness and risk of obstructive sleep apnoea in patients with bronchiectasis**
N.S. Faria Junior, I.R. Santos, L.M. Sampaio, J.J. Urbano, N.T. Fonseca, A.M. Bigatão, S.R. Santos, F.S.S. Leitão Filho, J.R. Jardim, L.V.F. Oliveira (Fortaleza, São Paulo, BR)
- P895 Association between obstructive sleep apnea severity and changes in regional cerebral perfusion in older individuals: a high resolution SPECT study**
A.-A. Baril, K. Gagnon, C. Arbour, H. Blais, C. Lafond, J.-P. Soucy, J. Montplaisir, J.-F. Gagnon, N. Gosselin (Montréal, CA)
- P896 Duration and degree of O₂ desaturation in voluntary apnea versus longest obstructive apnea in patients with obstructive sleep apnea syndrome of severe degree**
A. Lupusor, V. Vovc, I. Moldovanu (Chisinau, MD)
- P897 Night eating syndrome and obesity with obstructive sleep apnea, preliminary study**
D. Tuncel, O. Orhan, G. Bolat (Kahramanmaras, TR)
- P898 Markers of endothelial function in men with obstructive sleep apnea with and without metabolic syndrome**
G. Pilkauskaite, S. Miliauskas, R. Steponaviciute, R. Sakalauskas (Kaunas, LT)
- P899 Long-term CPAP effect on body compositions and cardiometabolic factors in obstructive sleep apnea**
P.-L. Lee, M.-J. Lin, W.-D. Wu, T.T.-F. Shih, K.-C. Huang, L.-W. Hang, C.-P. Chang, C.-T. Tang, T.-Y. Wang, C.-J. Yu (Taichung, Taipei, TW)
- P900 Eating patterns and sleepiness among truck drivers**
A.J. Martins, L.A. Martini, C.R.C. Moreno (São Paulo, BR)
- P901 Sleep apnea and oxidative stress**
M. Izaghour, R. Roky (Casablanca, MA)

- P902** **Tae-eum type as an independent risk factor for obstructive sleep apnea**
S.K. Lee, D.W. Yoon, C.-H. Yun, S.J. Kim, S. Chol (Ansan-si, Bundang-si, KR)
- P903** **Serum levels of microRNA-92a are associated with cardiovascular disease in obstructive sleep apnea**
H. Wang, Y. Lin, J. Liu (Naning, Nanning, CN)
- P904** **Prevalence of sleep-related accidents among Saudi drivers**
A.S. BaHammam (Riyadh, SA)
- P905** **Bus drivers' working hours and their effects on sleep and fatigue**
G. Kecklund, I. Radun, M. Ingre, C. Fors, J. Ihström, A. Anund (Linköping, Stockholm, SE)
- P906** **The Epworth Sleepiness Scale for screening of the drowsy driving: comparison with the maintenance of wakefulness test in an Iranian sample of commercial drivers**
K. Sadeghniaat-Haghighi, H.J. Moller, M. Saraei, O. Aminian, A. Khajeh-Mehrizi (Tehran, IR; Toronto, CA)
- P907** **Positive impact on readmission rate of adaptive servo-ventilation therapy in heart failure**
M. Yoshida, S.-I. Ando, T. Kadokami, T. Honda, K. Nakao (Chikushino, Fukuoka, Kumamoto, JP)

17.15 – 18.45 **Sleep disorders – Hypersomnia** Poster Exhibition

- P908** **Substructural atrophy in the mesiotemporal lobe in patients with narcolepsy**
E.Y. Joo, H. Kim, S.B. Hong (Seoul, KR; Montreal, CA)
- P909** **Narcolepsy with cataplexy post A/H1N1 vaccination – the first case reported from Cuba**
Y. Rosales-Mesa, M. Meira e Cruz (Havana, CU; Lisboa, PT)
- P910** **Excessive daytime sleepiness and metabolic syndrome: a population-based study of women**
A.C. Hayley, L.J. Williams, G.A. Kennedy, M. Berk, J.A. Pasco (Geelong, Melbourne, AU)
- P911** **Health related quality of life in Korean patients with narcolepsy**
T.W. Kim, S.C. Hong, S.H. Joo (Suwon, KR)
- P912** **The correlation of dream recall and clinical variables in narcoleptics**
D.-I. Jon, K.H. Lee, M.-D. Kim, K.-J. Min, S.-Y. Lee, S.-K. Chung, Y.-J. Kwon, B.-H. Yoon, J.-H. Jeong, W.-M. Bahk (Anyang, Cheonan, Gyeongju, Iksan, Jeju, Jeonju, Naju, Seoul, Suwon, KR)
- P913** **Safety results from a 12-week open-label, multicenter study of sodium oxybate in patients with narcolepsy**
M. Mamelak, T. Swick, H. Emsellem, J. Montplaisir, C. Lai, J. Black (Montréal, Toronto, CA; Houston, Palo Alto, Washington, US)
- P914** **HLA dosage effect in narcolepsy with cataplexy: additional evidence for a direct involvement of the HLA-DQ molecule in the development of the disease**
A. van der Heide, W. Verduijn, G. Haasnoot, J. Drabbels, G.J. Lammers, F. Claas (Leiden, NL)
- P915** **Traffic exposure: increased risk of both daytime sleepiness and habitual snoring**
T. Gislason, A. Johannsson, T.D. Skorge, C. Svanes, V. Schünssen, R. Jogi, L. Modig, B. Benediktsdottir, Ö.I. Emilsson, E.S.S. Arnardottir, C. Jansson (Reykjavik, IS; Bergen, NO; Arhus, DK; Tartu, EE; Gothenburg, Uppsala, SE)
- P916** **Polysomnographic and actigraphic characteristics of patients with H1N1-vaccine-related and sporadic narcolepsy**
A. Alakuijala, T. Sarkanen, M. Partinen (Helsinki, FI)

- P917 Glucose tolerance in patients with narcolepsy and matched healthy controls**
S.L. Weinhold, R. Göder, P.C. Baier (Kiel, DE)
- P918 Improvement of divided attention in narcolepsy by intranasal orexin-A**
S.L. Weinhold, R. Göder, P.C. Baier (Kiel, DE)
- P919 Differences in sleep architecture between narcolepsy and idiopathic hypersomnia: an overnight polysomnographic study**
P. van Mierlo, D. Pevernagie, S. de Wolf, S. Overeem (Amsterdam, Heeze, NL)
- P920 The utility of sleep onset REM (SOREM) in differential diagnosis of central hypersomnias**
M. Nalbantoglu, G. Benbir, D. Karadeniz (Istanbul, TR)
- P921 Patients with narcolepsy in Slovenia**
M. Todosijevic, L. Dolenc Groselj (Ljubljana, Novo Mesto, SI)
- P922 Decreased CPT1 function is associated with and a risk factor for narcolepsy and essential hypersomnia**
M. Honda, T. Miyagawa, Y. Shigematsu, T. Kodama, K. Tokunaga (Fukui, Tokyo, JP)
- P923 Alteration of white matters in narcolepsy with cataplexy; diffusion tensor imaging study**
Y.K. Park, O.-H. Kwon, E.Y. Joo, S.B. Hong (Seoul, KR)
- P924 Sleepiness and performance is disproportionate in patients with nonorganic hypersomnia compared to idiopathic hypersomnia, narcolepsy and obstructive sleep apnoea syndrome**
D. Schreier, W.J. Schmitt, J. Mathis (Bern, CH)
- P925 Norwegian H1N1-vaccinated Kleine-Levin syndrome and idiopathic hypersomnia cases – is narcolepsy the only CNS hypersomnia occurring after pandemix?**
S.H. Nordstrand, K.H. Bronder, P.E. Hesla, E. Midtlyng, S. Knudsen (Oslo, NO)
- P926 Educational challenges for children with narcolepsy in Norway**
H.N. Andresen, Y. Kamaleri, K.H. Bronder, E. Midtlyng, S. Knudsen (Oslo, NO)
- P927 Diagnostic potential of nocturnal sleep stage transitions to identify narcolepsy type 1**
F. Pizza, S. Vandi, M. Iloti, K.K. Moghadam, E. Mignot, G. Plazzi (Bologna, IT; Palo Alto, US)
- P928 Weight loss persists in narcolepsy patients using sodium oxybate**
C.E.H.M. Donjacour, W.P. van der Meijden, P.P. Buijserd-Amesz, G.J. Lammers (Heemstede, Leiden, NL)
- P929 Oral L-carnitine as treatment for narcolepsy during pregnancy: a case report**
C. Liguori, F. Placidi, N.B. Mercuri, F. Izzi, M. Albanese, A. Marchi, C. Mancini, M.G. Marciani, A. Romigi (Rome, IT)
- P930 Clinical efficacy of intravenous immunoglobulins (IVIg) in pediatric type-1 narcolepsy: a case-controlled study**
J. Corny, A. Papon, O. Bourdon, A. De Lauzanne, M. Lecendreux (Paris, FR)
- P931 Symptoms of attention-deficit hyperactivity disorder (ADHD) in pediatric narcolepsy**
M. Lecendreux, S. Lavault, S. Scholtz, C.O. Inocente, E. Konofal, P. Franco, I. Arnulf, Y. Dauvilliers (Lyon, Montpellier, Paris, FR)
- P932 Effector and regulatory T-cells in narcolepsy**
M. Lecendreux, A. Regnault, E. Franck, D. Klatzmann, M. Rosenzweig (Paris, FR)
- P933 Association between sleep duration, unmet sleep need and excessive daytime sleepiness in Korean adults**
K.I. Yang, Y. Hwangbo, M.K. Chu, C.-H. Yun, W.-J. Kim (Anyang, Cheonan, Seongnam, Seoul, KR)

- P934 Physical fitness in narcolepsy**
K. Sonka, J. Buskova, S. Nevsimalova, V. Tuka, M. Matoulek (Prague, CZ)
- P935 Amygdalar volume in narcolepsy type 1 and 2 and in controls**
V. Nemcova, J. Krásenský, P. Petrovický, M. Vaneckova, Z. Seidl, J. Buskova, K. Sonka (Prague, CZ)
- P936 Marked improvement of narcolepsy symptoms during treatment with baclofen – a case report**
A. Wierzbicka, A. Wichniak, I. Musińska, K. Czasak, E. Waliniowska, L. Wołkow, W. Jernajczyk (Warsaw, PL)
- P937 Swiss Narcolepsy Scale: a valid tool for the identification of hypocretin-1 deficient patients with narcolepsy**
C. Sturzenegger, C.R. Baumann, U. Kallweit, G.J. Lammers, C.L. Bassetti (Bern, Wald, Zürich, CH; Leiden, NL)
- P938 The impact of the ICSD-3 MSLT/PSG criteria on the diagnosis of narcolepsy**
P. Geisler, J. Ohli, R. Popp, T. Crönlein, T.C. Wetter (Regensburg, DE)
- P939 Narcolepsy cataplexy atypical associations: lucid dreaming and Diogenes syndrome**
T. Paiva, T.R. Pinto, V. Ramos, M. Chaves, P.S. Nunes (Lisbon, PT)
- P940 Psychosis in narcolepsy as a side effect of sodium oxybate**
T. Sarkanen, V. Niemelä, A.-M. Landtblom, M. Partinen (Helsinki, Jyväskylä, FI; Uppsala, SE)
- P941 Multiple sleep latency test may be not sensitive in obstructive sleep apnea with comorbid narcolepsy revealed by cerebrospinal-fluid orexin low levels**
F. Placidi, C. Liguori, F. Izzi, M. Albanese, A. Marchi, F. Cum, N.B. Mercuri, M.G. Marciani, A. Romigi (Rome, IT)
- P942 Complete loss of F-waves during cataplectic attacks in patients with narcolepsy**
F. Salih, P. Grosse (Berlin, DE)
- P943 Treatment response of subjective and objective measures of sleepiness in narcolepsy with cataplexy**
R. Taddei Garcia, E. Werth, R. Poryazova, Y. Gavrilov, C.R. Baumann, P.O. Valko (Zurich, CH)
- P944 The Swiss Narcolepsy Scale for the identification of patients with narcolepsy: a prospective, “real-life“, sleep-centre study in a cohort of 811 patients**
U. Kallweit, C. Sturzenegger, H. Hidalgo, C.L. Bassetti (Bern, Wald, CH; Katzenelnbogen, DE)
- P945 Frequency of genetic risk and protective alleles for narcolepsy with cataplexy in Estonia**
M. Teder-Laving, H. Rein, M. Pindmaa (Tallinn, Tartu, EE)
- P946 Patterns of sleep latency in the multiple sleep latency test naps across the day in central nervous system hypersomnias**
C. Fernandes, A. Castro Caldas, C. Bentes, A.R. Peralta (Almada, Lisbon, PT)
- P947 Persistent somnolence despite adequate CPAP therapy**
H. Sutton (London, GB)
- P948 The occurrence of hypnagogic hallucinations and sleep paralysis according to age and disease duration in narcolepsy with cataplexy**
P. Kovalska, D. Kemlink, J. Buskova, S. Nevsimalova, K. Sonka (Prague, CZ)

- P949** **sleep disorders other than parasomnias, as mimics of epilepsy**
A.W. de Weerd (Zwolle, NL)
- P950** **Transcranial magnetic stimulation improves sleep parameters and quality of life in patients affected with focal epilepsy**
O. Sanchez Escandon, Y. Arana Lechuga, G. Teran Pérez, J. Velazquez, P. Shkurovich Bialik, M.A. Collado, A. Ruiz Chow (México, MX)
- P951** **Effect of the timing of acetylcholinesterase inhibitor ingestion on sleep**
Y.-J. Kwon, W.-M. Bahk, B.-H. Yoon, K.-J. Min, S.-Y. Lee, D.-I. Jon, K.H. Lee, S.-K. Chung, M.-D. Kim, H.R. Song (Anyang, Cheonan, Gyeongju, Iksan, Jeju, Jeonju, Naju, Seoul, KR)
- P952** **Orexin levels in patients with Niemann-Pick type C and their response to Miglustat treatment**
Y. Sagawa, T. Kanbayashi, H. Kubota, Y. Hamada, A. Imanishi, M. Omokawa, T. Takahashi, N. Sakai, S. Nishino, T. Shimizu (Akita, Osaka, JP; Palo Alto, US)
- P954** **The cognitive and functional status of stroke patients are negatively affected by obstructive sleep apnoea**
J.A. Aaronson, W.F. Hofman, C.A.M. van Bennekom, E. Groet, W.A. Kylstra, T. van Bezeij, J.G. van den Aardweg, B. Schmand (Alkmaar, Amsterdam, Wijk aan Zee, NL)
- P955** **Sleep apnea and stroke**
J. Huhtakangas, J. Huhtakangas, T. Saaresranta (Oulu, Turku, FI)
- P956** **Sleep spindles mixed with spikes/sharp waves in a patient with supplementary motor area epilepsy**
F. Boghez (Bucharest, RO)
- P957** **Sleep quality and pain thresholds in subjects with tension type headache and migraine compared to healthy controls**
M. Engstrøm, K. Hagen, M. Bjørk, L.J. Stovner, G.B. Gravdahl, M. Stjern, T. Sand (Bergen, Trondheim, NO)
- P958** **Fatal familial insomnia: a new Spanish case of an unreported family**
R. Domínguez-Rubio, F. Díaz-Otero, A. Iglesias, M. Hidalgo, J.M. Velázquez, Y. Fernández-Bullido, L. Lillo-Triguero, R. Peraita-Adrados (Madrid, ES)
- P959** **Sleep structure, associated sleep disorders, and the effects of medications on nocturnal sleep and daytime sleepiness in patients with Parkinson's disease**
B. Korkmaz, G. Benbir, D. Karadeniz (Istanbul, TR)
- P960** **Brain structural abnormalities associated with rapid eye movement sleep behaviour disorder in Parkinson's disease**
S. Boucetta, A. Salimi, M. Dadar, B. Jones, D.L. Collins, T.T. Dang-Vu (Montreal, CA)
- P961** **Arousal scoring in epilepsy**
Ö. Akgün, & Öztura, B. Baklan (Izmir, TR)
- P962** **Sleep apnea and periodic leg movements in the acute phase of spinal cord injury**
P. Proserpio, A. Lanza, K. Sambusida, L. Fratticci, P. Frigerio, M. Sommariva, E.G. Stagni, T. Redaelli, F. De Carli, L. Nobili (Genoa, Milan, IT)
- P963** **A questionnaire study on the sleep-related difficulties in the children with cerebral palsy**
L. Maisuradze, T. Ediberidze, N. Gogatishvili, N. Tatishvili, S. Kasradze (Tbilisi, GE)
- P964** **Sleep disturbances in patients with multiple sclerosis associated fatigue**
A. Chikadze, L. Khuchua, M. Kiziria, D. Gugutsidze, M. Jibladze, R. Shakarishvili (Tbilisi, GE)

- P965 Sleep quality through overnight standard polysomnography in patients with cerebral palsy**
L.C. Giannasi, S.R.B. Freitas, M.Y. Matsui, S.R. Nacif, J.B.O. Amorim, I.R. Santos, C.S. Oliveira, L.V.F. Oliveira, M.F. Gomes (Sao Jose dos Campos, São Paulo, BR)
- P966 Central sleep apnoea in patient with hydrocephalus. A case report**
S.R. Nacif, J.J. Urbano, N. Apostolico, I.S. Dias, N.T. Fonseca, I.R. Santos, E.F. Oliveira, R.G. Almeida, L.V.F. Oliveira (São Paulo, BR)
- P967 Subjective and objective sleep quality in migraine: the Hypnolaus/Psycholaus study**
J. Haba-Rubio, D. Andries, N. Tobback, M. Preisig, E. Castelao, M. Tafti, R. Heinzer (Lausanne, CH)
- P968 EEG topography alterations in wakefulness and sleep in patients with mild cognitive impairment and Alzheimer disease**
G. Lauri, I. Truglia, S. Cordone, G. Della Marca, M. Gorgoni, A. D'Atri, M. Ferrara, P.M. Rossini, L. De Gennaro (L'Aquila, Rome, IT)
- P969 Interhemispheric information flow between wake- and sleep-EEG signals after cerebral ischemia**
F. Zubler, S. Miano, T. Horvath, A. Seiler, S. Duss, C. Roth, J. Mathis, K. Schindler, C. Bassetti, H. Gast (Bern, Lugano, CH)
- P970 Fatigue and excessive daytime sleepiness in the UK Myotonic Dystrophy Patient Registry**
A. Atalaia, L. Wood, S. West, K. Anderson, C. Turner, D. Hilton-Jones, H. Lochmuller (London, Newcastle upon Tyne, Oxford, GB)
- P971 Longitudinal changes in the build-up of sleep slow wave activity in young patients recovering from acquired brain injury**
A.-L. Mouthon, H.J.A. van Hedel, A.D. Meyer-Heim, R. Huber (Affoltern am Albis, Zurich, CH)
- P972 Partial sleep deprivation in patients with focal epilepsy: effect on sleep macrostructure and cyclic alternating pattern**
L. Carnicelli, L. Caciagli, M. Maestri, F.S. Giorgi, M. Guida, E. Di Coscio, U. Bonuccelli, E. Bonanni (Pisa, IT)
- P973 Narcolepsy-like symptoms in Parkinson's disease**
A. Ylikoski, K. Martikainen, T. Sarkanen, A. Huutoniemi, M. Partinen (Helsinki, Turku, FI)
- P974 Periodic limb movements during REM sleep in multiple sclerosis**
C. Veauthier (Berlin, DE)
- P975 Lower quality of sleep is associated with lower quality of life in patients with epilepsy**
L. Ghahramanyan, M. Jaghatspanyan, T. Stepanyan, S. Khachatryan (Yerevan, AM)
- P976 "HRV" (Heart rate variability) – a new parameter for the autonomic nervous system and correlate of normal and pathologic sleep?**
J. Zeitlhofer (Vienna, AT)
- P978 Relationship of insomnia to different nocturnal symptoms in patients with Parkinson's disease**
Z. Tavadyan, S. Khachatryan, H. Bakunts (Yerevan, AM)
- P979 Is sleep related breathing disorder associated with REM sleep behavioural disorder in patients with idiopathic Parkinson's disease?**
B.J. Vorderwülbecke, E. Breuer, R. Kretz, P. Grosse (Berlin, Hamburg, DE)
- P980 Epilepsy patients with insomnia express more severe depression compared to insomnia patients**
A. Karamyan, L. Ghahramanyan, S. Khachatryan (Yerevan, AM)

- P981 Estimation of sleep in patients with epilepsy: comparison of polysomnographic (PSG) and sleep log measures**
N.-T. Economou, S. Hoque, D. Moul, N. Andrews, N. Foldvary-Schaefer (Cleveland, US)
- P982 Pulmonary function of myotonic dystrophy with chronic ventilatory failure**
D. Kim, S.-W. Kang, W.A. Choi (Seoul, KR)
- P983 Polysomnography detects benign paroxysmal positional vertigo**
Y. Valko, E. Werth, C.J. Bockisch, P.O. Valko, K.P. Weber (Zurich, CH)
- P984 Reduced frequency of cortical arousals in patients with idiopathic Parkinson's disease**
M. Sommerauer, L.L. Imbach, M. Jarallah, C.R. Baumann, P.O. Valko (Zurich, CH)
- P985 Occurrence of restless legs syndrome is associated with higher depression and anxiety rates and nocturnal seizures in epilepsy**
S. Khachatryan, A. Karamyan, L. Ghahramanyan, M. Ghambaryan, N. Nahapetyan, T. Stepanyan (Yerevan, AM)
- P986 Faster sleep spindles at the side of the epileptic focus in patients with temporal lobe epilepsy**
C. Moshovos, G. Makridakis, A. Koupparis, E. Tsoukas, A. Bonakis, D. Pandis, A. Ghika, I. Evdokimidis, A. Kyrozis (Athens, GR)
- P987 Bright light therapy in restless legs syndrome: a double-blind, placebo-controlled study**
U. Kilic-Huck, C. Meyer, E. Ruppert, J. Chambe, M. Bataillard, C. Schroder, P. Bourgin (Strasbourg, FR)
- P988 The prevalence of restless legs syndrome (RLS) and sleep medication use in patients with myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS)**
I. Bileviciute-Ljungar, E. Pajediene, D. Friberg (Huddinge, Stockholm, SE; Kaunas, LT)

17.15 – 18.45

Paediatrics

Poster Exhibition

- P990 Sleep duration sleep at 3 years is associated with fat, lean and bone mass at 4 years of age: findings from the Southampton Women's Survey**
J. Baird, C.M. Hill, S. Robinson, K. Godfrey, N. Harvey, C. Cooper, H. Inskip (Southampton, GB)
- P991 Consequences of taking risks: why adolescents choose to 'switch off' before bed**
C. Reynolds, M. Gradisar, K. Afrin, A. Perry, J. Wolfe, M.A. Short (Adelaide, AU)
- P992 Correlation between salivary alpha amylase level and electrocardiogram (ECG) based cardiopulmonary analysis in paediatric subjects with obstructive sleep apnoea**
C.S. Park (Suwon, KR)
- P993 Analysis of cephalometry in obstructive sleep apnoea in paediatric subjects**
H.K. Lee (Suwon, KR)
- P994 The children sleep comic – a new self-rating tool for childhood insomnia**
B. Schwerdtle, J. Kanis, A. Kübler, A.A. Schlarb (Bielefeld, Würzburg, DE)
- P995 Prospective changes in adolescents' sleep and weight across 1 year**
M. Guidolin, M. Gradisar, M.A. Short, N. Lovato (Adelaide, AU)
- P996 Does obstructive sleep apnea contribute to elevated intracranial pressure in children with syndromic craniosynostosis? A prospective cohort study**
B. Spruijt, K.F.M. Joosten, C. Driessen, M.L.C. van Veelen-Vincent, N. Naus, D. Rizopoulos, R.C. Tasker, I.M.J. Mathijssen (Rotterdam, NL; Boston, US)
- P997 Effects of a multimodal sleep training for infants and toddlers on maternal sleep – preliminary actigraphy data**
J.B. Kanis, B. Schwerdtle, A. Kübler, A.A. Schlarb (Bielefeld, Würzburg, DE)

- P998 Delayed sleep phase disorder in an Australian school-based sample of adolescents**
N. Lovato, M. Gradisar, M. Short, H. Dohnt, G. Micic (Adelaide, AU)
- P999 Prevalence of obstructive sleep apnoea in young children with Down syndrome: a domiciliary cardiorespiratory study**
C.M. Hill, A. Ashworth, H. Elphick, H. Evans, M. Farquhar, J. Gavlak, P. Gringras, R. Kingshott, J. Martin, R. Pickering, J. Reynolds (London, Sheffield, Southampton, GB)
- P1000 Incidence and persistence of insomnia symptoms in the transition between childhood and adolescence**
J. Fernandez-Mendoza, J. Gaines, S. Calhoun, A. Vgontzas, D. Liao, E. Bixler (Hershey, US)
- P1001 Does obstructive sleep apnea influence sleep quality in children with syndromic craniosynostosis?**
B. Spruijt, I.M.J. Mathijssen, H.H. Bredero-Boelhouwer, K.F.M. Joosten (Rotterdam, NL)
- P1002 Meta-analysis of protective and risk factors for adolescent sleep**
K. Bartel, M. Gradisar, P. Williamson (Adelaide, AU)
- P1003 One hour of pre-bedtime screen light: effects on adolescents' pre-bedtime alertness, sleep and daytime functioning**
M. Heath, C. Sutherland, K. Bartel, M. Gradisar, P. Williamson, N. Lovato, G. Micic (Adelaide, AU)
- P1005 A reliability and validity study of the pediatric daytime sleepiness scale among school aged children in Japan**
Y. Komada, S. Nakajima, R. Breugelmans, C.L. Drake, Y. Inoue (Tokyo, JP; Detroit, US)
- P1006 Disturbances of carbohydrate metabolism at night in children with obesity, different height and sleep apnea (pilot study)**
O. Kozhevnikova, V. Altunin, L. Namazova-Baranova, A. Gevorkyan, I. Shirokova, A. Batirova, I. Kondrahina, E. Abashidze (Moscow, RU)
- P1007 Consequences of updated AASM criteria in scoring for obstructive sleep apnea in children with syndromic craniosynostosis**
H. Bredero-Boelhouwer, B. Spruijt, L.J.A. Corel, I.M.J. Mathijssen, K.F.M. Joosten (Rotterdam, NL)
- P1008 Sleep disturbance in children with and without developmental coordination disorder (DCD) and links with daytime functioning**
L. Wiggs, M. Sparrowhawk, A. Barnett (Oxford, GB)
- P1009 Weighted blankets and sleep in autistic children – a randomised controlled trial**
P. Gringras, D. Green, B. Wright, C. Rush, M. Sparrowhawk, K. Pratt, V. Allgar, N. Hooke, D. Moore, Z. Zaiwalla, L. Wiggs (London, Oxford, York, GB)
- P1010 The effect of therapist input on effectiveness of internet therapy for adolescents with insomnia**
E.J. de Bruin, A.M. Meijer (Amsterdam, NL)
- P1011 Hand and foot distal vasodilation decreases wakefulness duration in preterm neonates**
L. Barcat, E. Bodin, P. Décima, E. Stéphan-Blanchard, S. Delanaud, P. Tourneux, J.-P. Libert, A. Léké, V. Bach (Amiens, FR)
- P1012 How families sleep? – Observations from the child-sleep birth cohort study**
O.A. Saarenpää-Heikkilä, J. Paavonen, S.-L. Himanen, A. Kylliäinen, P. Pölkki, T. Stenberg, T. Paunio (Helsinki, Kuopio, Tampere, FI)
- P1013 Routine respiratory screening for children with severe motor disorders using night-time postural equipment (sleep systems): a qualitative study**
S. Moens, E. Mccaughey, C. Quint, S. Beasley, S. Jenkins, H. Evans, C.M. Hill (Portsmouth, Southampton, GB)

- P1014 The impact of demographics and sleep hygiene factors on sleep in children aged 2-10 years**
A. Richdale, R.Y. Cai (Melbourne, AU)
- P1015 Effects of six-months methylphenidate treatment on sleep disturbances in children with attention-deficit/hyperactivity disorder. A pilot study**
F. Liboni, L. Palagini, A. Manfredi, A. Tacchi, F. Ricci, M. Mauri, G. Masi (Pisa, IT)
- P1016 Valid methods for the estimation of children's sleep problems in clinical practice**
H. Werner, P. Hunkeler, C. Benz, L. Molinari, R. Huber, O. Jenni (Zurich, CH)
- P1017 Evaluation for apparent life-threatening events (ALTE) in infants - using polysomnography with simultaneous pH monitoring**
K.-Y. Chae, S.-K. Rhie, Y.-W. Bang, I.-K. Sohn (Seongnam, Uiwang, KR)
- P1018 Child and carer sleep quality in paediatric hospital wards**
R.S. Bevan, R. Sankey, E. Clayton, H. Grice, C.M. Hill (Southampton, GB)
- P1019 Prospective polysomnographic study in children with monosymptomatic nocturnal enuresis and polyuria**
K. Dhondt, C. Van Herzeele, A. Raes, L.-A. Groen, P. Hoebeke, J. Vande Walle (Ghent, BE)
- P1020 Effects of a dietary intervention on the sleep patterns in children with autistic spectrum disorders**
R. Haro, R. Huerta, A. Labra, F. Sánchez-Narváez, E.G. Ibarra-Coronado, E. Portillo, C. Fernandez, M. Ramirez, O. Garcia, M. Apodaca, E. Sanchez (México, MX)
- P1021 Improvement of sleep architecture in down syndrome children after a nutritional complement**
R. Huerta, A. Labra, F. Sánchez-Narváez, U. Jimenez-Correa, J.H. Medina-Chavez, E. Portillo, A. Ramirez, O. Garcia, M. Ramirez, E. Sanchez, R. Haro (México, MX)
- P1022 Tobacco smoke exposure increases gastro-oesophageal reflux occurrence during active sleep in neonates**
F. Telliez, A. Léké, A.-S. Lemaire-Hurtel, E. Stéphan-Blanchard, S. Delanaud, V. Bach, D. Djeddi-Dine (Amiens, FR)
- P1023 Ready, Set, Snooze! An interactive, web-based treatment program for pediatric behavioral sleep problems**
C.A. Alfano, J. Cowie, J. Spitalnick, D. Mcdaniel (Atlanta, Houston, US)
- P1024 European survey on polysomnography in patients with Robin sequence**
M.J.S. van Lieshout, K.F.M. Joosten, I.M.J. Mathijssen, M.J. Koudstaal, H.L.J. Hoeve, M.P. van der Schroeff, E.B. Wolvius (Rotterdam, NL)
- P1025 Sleep deprivation impact upon adolescents' health and quality of life**
T. Paiva, T. Gaspar, M.G. Matos (Lisbon, PT)
- P1026 A case of adolescent with severe non-24-hour sleep-wake disorder due to lack of time cues**
B. Gnidovec Strazisar (Ljubljana, SI)
- P1027 Polysomnography is a useful tool in the decannulation procedure of children with a tracheostomy tube**
S. Dimmendaal, L. Corel, B. Pullens, L.J. Hoeve, K.F.M. Joosten (Rotterdam, NL)
- P1028 The value of pre-operative polysomnography with a palatal plate in predicting the risk of respiratory distress following palatal closure in patients with Robin sequence**
M. van Lieshout, K.F.M. Joosten, I.M.J. Mathijssen, M.J. Koudstaal, M.P. van der Schroeff, E.B. Wolvius (Rotterdam, NL)
- P1029 Sleep characteristics in children with autism spectrum disorder**
M. Aguilar Andújar, M.D. Guerrero Sánchez, C. Menéndez De León, I. Ramos, A. Márquez (Seville, ES)

- P1030 Sleep quality in infants at the age of three months**
J. Paavonen, T. Paunio, P. Pölkki, A. Kylliäinen, T. Porkka-Heiskanen, O. Saarenpää-Heikkilä (Helsinki, Kuopio, Tampere, FI)
- P1031 Automated EEG amplitude variability parameters during non-REM sleep: differences between normal weight, overweight and obese children**
R. Chamorro, M. Illanes, C. Algarin, O. Rojas, R. Ferri, B. Lozoff, P. Peirano (Santiago, CL; Santiago, TD; Troina, IT; Ann Arbor, US)
- P1032 Automated EEG amplitude variability parameters during non-REM sleep correlate with their corresponding cyclic alternating pattern (CAP) parameters in healthy children**
M.P. Illanes, R. Chamorro, C. Algarin, O. Rojas, R. Ferri, B. Lozoff, P. Peirano (Santiago, CL; Troina, IT; Ann Arbor, US)
- P1033 Narcolepsy in school-aged children. A case report**
A. Pedrera-Mazarro, V. Navarro-Abia, N. Cuéllar-Ramos, M.D.M. Moreno-Galera, C.A. Gómez-Ansedé, M. Aparicio-Meix (Madrid, ES)
- P1034 Evaluation of two projects on sleep education: “Sleep Schools Project” and “Sleep more to Read better”**
T. Rebelo-Pinto, J.C. Pinto, H. Rebelo-Pinto, F. Brito, F. Cravo, P. Luís, T. Paiva (Lisbon, PT)
- P1035 Sleep habits, personal factors and environmental factors: a three-dimensional sleep model for Portuguese adolescents**
J.C. Pinto, T. Rebelo-Pinto, H. Rebelo-Pinto, T. Paiva (Lisbon, PT)

17.15 – 18.45 Sleep and gender

Poster Exhibition

- P1036 Sensitivity and specificity of the neck circumference in predicting obstructive sleep apnea syndrome in male**
S. Mihaicuta, I.A. Toth, S. Paralescu, C. Ardelean, S. Frent (Timisoara, RO)
- P1037 The impact of CPAP treatment on life satisfaction and close relationships in patients with sleep apnea**
M. Petersen, E. Kristensen, S. Berg, B. Midgren (Copenhagen, DK; Lund, SE)
- P1038 Gender differences in obstructive sleep apnea**
P.M. Lazo Meneses, E. Mañas Baena, C. Gotera Rivera, D. Barrios Barreto, J. García Leaniz (Madrid, ES)
- P1039 Effect of mother-infant separation on sleep habits of mothers**
Y. Oka, N. Takata, K. Mori (Ehime, JP)
- P1040 Upper airway flow limitation during sleep in normal pregnancy**
V. Rimpilä, K. Lassila, R. Jernman, A.V. Salminen, J. Uotila, J. Mäenpää, O. Polo (Tampere, FI)

List of Speakers and Authors

Aaronson J.A.	P954
Abalkhial B.	P869
Abashidze E.	P1006
Abel T.	194
Abey Suriya R.G.	123
Achermann P.	42, 89, 243, 290, P806, P809
Ackermann K.	169
Adamczyk M.	P805
Adrien J.	84
Afrin K.	P991
Aghini Lombardi F.	P870
Aguilar Andújar M.	P479, P1029
Ahlers E.	P751
Ahmad I.	P869
Ahn Y.M.	P664
Aho V.	237, P851
Aizu Y.	P755
Akbaraly T.	P766
Akerstedt T.	245, P326, P518, P570, P617, P706, P767, P768, P772, P836
Akgün Ö.	P961
Akram U.	P441
Aksenova A.	P418
Al Tzachmani A.	P331
Al-Abri M.	P632
Ala-Korpela M.	237
Alakuijala A.	P916
Ala-Mursula L.	P468
Alasaari J.	P798, P800
Albanese M.	231, P711, P729, P890, P929, P941
Albouy G.	141, 197
Alehagen U.	P773, P774
Alekhin M.	P534
Alexander I.	P431
Alexandre C.	287
Alexandre J.-M.	P568
Alfano C.A.	P856, P1023
Alfayate J.	P634
Alfredsson L.	P772
Algarin C.	212, P550, P757, P1031, P1032
Alguacil J.	295
Al-Hashmi K.	P632
Alieva A.	P524
Allebrandt K.	182
Allegrini P.	62, P825
Allen A.	P443, P444, P445
Allen Gomes A.C.	P532
Allgar V.	P1009
Allocca G.	P369
Almeida O.F.	P804
Almeida R.G.	P887, P966
Al-Motary H.	P869
Alonderis A.	P485
Al-Sabti H.	P632
Altunin V.	P1006
Altzibar J.M.	295
Alvarez-Sala R	P634
Alves M.	P385
Ametamey S.M.	227
Amici R.	68b, 287, 304, P330, P331, P518, P834
Amiéva H.	P769
Amini M.	P619
Aminian O.	P420, P423, P451, P619, P740, P906
Amirian I.	P582
Ämmälä A.-J.	P798, P800
Amodio P.	P487
Amorim J.B.O.	P965
Anaclet C.	286
Anderer P.	122, P462, P463, P657

Andersen L.T.	P582
Andersen M.L.	P558, P852
Anderson C.	P592
Anderson I.	P359
Anderson K.	P970
Ando S.-I.	255, P907
Andrade U.A.	P434
Andresen H.N.	P926
Andrews N.	P981
Andries D.	117, P504, P728, P967
Andruskiene J.	P761, P762, P820
Anelli M.	P480
Ang J.E.	169
Anishchenko L.	P534
Anner P.	P536
Anothaisintawee T.	P488
Antoniou K.	P492
Anund A.	P905
Aoshima Y.	P408
Aoyagi T.	P531
Aparicio-Meix M.	P1033
Apodaca M.	P1020
Apostolico N.	P887, P966
Aragonés N.	295
Arakawa H.	P783
Arana Lechuga D.Y.	P470
Arana Lechuga Y.	P950
Aranda	P384
Araujo J.F.	P794, P821
Araujo P.	P558
Araújo T.	P684
Arbon E.L.	P614
Arbour C.	P636, P893, P895
Arcelin A.	P675
Archer S.	53, 81, 201, 226, 242, 244, 291, P561, P577, P843
Ardanaz E.	295
Ardelean C.	P410, P1036
Arends J.B.A.M.	P710
Arimura M.	P637
Armour C.L.	P461
Armstrong K.	P827, P866
Arnal P.	P844, P848
Arnardottir E.S.S.	272, P378, P718, P791, P880, P915
Árnason B.	29, P841
Arnulf I.	221, 250, P931
Arnulfo G.	P318
Arora T.	P346
Arrieta P.	P374
Arrieta Narvaez P.	P506
Arsenyev G.N.	P530
Arthaud S.	P628, P808, P854
Artiles I.	P634
Aru J.	P607, P811
Arvastson L.	265, P538
Arzt M.	P889
Ashie T.	P755
Ashworth A.	P999
Astill R.G.	P354
Atalaia A.	P970
Aton S.J.	194
Attia J.	P654
Atzori G.	P557, P566
Aubry J.-M.	P460, P676
Auger M.-C.	P689
Auriacombe M.	P568
Aurlien H.	P398, P879
Axelsson J.	115, P609, P831, P850
Ayabe N.	P459
Azevedo M.H.	P443, P444, P445, P520
Babilodze M.	P813, P815

Babiychuk G.	P334
Bach I.	P564
Bach V.	204, P1011, P1022
Bachmann T.	P607, P811
Bachmann V.	55
Bachour A.	P389, P891
Bader G.	P792
Baek S.-H.	P579
Baglioni C.	56, 253, 292, P440, P449, P596
BaHammam A.S.	P904
Baharav A.	P793
Bahk W.-M.	P474, P475, P611, P677, P739, P912, P951
Baier P.C.	199, P747, P748, P917, P918
Baillie G.S.	194
Baird J.	P990
Baker E.	P737, P745
Bakhshandeh A.	P346
Baklan B.	P719, P961
Bakotic M.	P839
Bakunts H.	P978
Ball M.	P343, P500
Ballhausen F.	P747
Balteau E.	61, P561
Banaei M.S.	P528
Bang Y.-W.	P1017
Banks S.	P613, P616
Bano M.	301
Baracchi F.	284, P320, P626
Barbé F.	P871
Barberger-Gateau P.	P766
Barbot F.	P858
Barcaro U.	P366
Barcat L.	P1011
Barclay N.L.	P441, P527
Baril A.-A.	P636, P893, P895
Barlow I.	234
Barnes M.	258
Barnett A.	P1008
Barnett M.	P570
Barrios D.	P374
Barrios Barreto D.	P506, P508, P542, P771, P1038
Bartel K.	P1002, P1003
Bartels R.	P572
Bartlett D.J.	59, 260, P461, P645, P690
Barun B.	P564
Barušić A.K.	P564
Barut B.	P732
Basheer R.	P812
Basishvili T.	P328, P556, P785
Bassetti C.	104, 256, 284, P320, P416, P626, P633, P937, P944, P969
Bastianini S.	63, 287, P319, P320
Bastien C.H.	60, P689
Bastuji H.	P314, P325
Bataillard M.	P987
Batirova A.	P1006
Baumann C.	218, 241, 279, P503, P622, P735, P937, P943, P984
Baumer A.	227
Bäuml K.-H.T.	P601
Bayer L.	P600
Bayon V.	P844
Bazhenova N.S.	232
Beanland V.	P618
Beasley S.	P1013
Beck J.	252
Becke A.	P336
Beckers G.J.L.	P803, P818
Bedetti C.	90, 92
Beersma D.	108, P437
Behar E.	P407
Beijamini F.	P348

Belal S.Y.	P606
Belanger-Nelson E.	P817
Beldzik E.	P583, P857
Belge C.	P381
Bellerive A.	P730
Benali H.	197
Benbir G.	P920, P959
Benderius O.	P845
Benedek P.	P668
Benediktsdottir B.	29, 272, P378, P718, P880, P915
Bengtsson C.	P499
Benjamins J.	132, P354, P450, P593, P696
Bennett M.	P400
Bentes C.	P946
Bentivoglio A.R.	P731
Benz C.	P694, P1016
Berdina O.	P402, P764
Berg A.	210
Berg S.	P1037
Berger K.	271
Berger W.	241
Berk M.	P910
Bernasconi C.A.	256, P416
Bernath I.	P882
Berro L.F.	P852
Berteotti C.	63, 287, P319, P320
Berthomier C.	P675, P769
Bertolino L.B.	P446
Bertran F.	P363
Bertrand M.	P766
Besset A.	P766
Bessot N.	P571
Bethke-Jänicke C.	P748
Beudin P.	267, P725, P727
Bevan R.S.	P1018
Bhatt S.P.	P501
Bianchi S.	P824
Bidarian- Moniri A.	P654
Bigatão A.M.	P894
Bijak M.	P462, P463
Bileviciute-Ljungar I.	P514, P988
Bioulac S.	124, P537, P746
Birklbauer J.	P593
Birring S.	P509
Biscontin A.	228
Bittencourt L.R.	P434
Bixler E.	207, 208, 209, 210, P1000
Bjørk M.	P957
Bjornsdottir E.	P682, P718
Bjorvatn B.	20, 75, 152, 154, P398, P705, P799, P832, P879
Black G.	P431
Black J.	147, P507, P754, P913
Blagrove M.	202, P352, P565
Blais H.	P893, P895
Blau A.	P789
Blechert J.	121
Bloch B.	P744
Bloem B.R.	P710
Blumberg M.	192
Bocca M.L.	P860
Bochkarev M.	P524
Bockisch C.J.	P983
Bodart A.	P588
Bodin E.	P1011
Bódizs R.	268
Bogan R.K.	149
Bögels S.M.	181, P589
Boghez F.	P956
Boglou P.	P516
Böhning W.	P486

Bolat G.	P897
Bolduc M.	P684
Bölsterli Heinzle B.	P342
Bonakis A.	P686, P722, P776, P986
Bonanni E.	294, P870, P972
Bondolfi G.	P460, P676
Bonfiglio L.	P366
Bonnar D.	206
Bonsignore M.	69, 97c
Bonuccelli U.	P870, P972
Borbély A.	111
Bore A.	P371
Borodin N.V.	P490
Borrello A.	241
Borsu C.	53, 291, P577, P843
Bos S.C.	P532
Bosio P.C.	P887
Bothe K.	45, P602
Bottasini V.	P680
Boucetta S.	P675, P960
Bouchard M.	88, 90, 92
Bouet V.	P571
Bougard C.	P844, P848
Bouloukaki I.	261, P492, P875
Bour F.	P765
Bourdon O.	P930
Bourgeois T.	P315
Bourgin P.	240, P380, P987
Bourguignon M.	P587
Bouros D.	P516, P640
Bourrilhon C.	P848
Boyarinova M.	P524
Bozic J.	P659, P670
Brand S.	205
Brandeis D.	290
Brandewinder M.	P675, P769
Bream G.	147
Breden H.	196
Bredero-Boelhouwer H.H.	P1001, P1007
Breuer E.	P979
Breugelmans R.	P1005
Bridge H.	P431
Briese E.	P486
Brink M.	P337
Briscoe S.	11i
Brito F.	P377, P1034
Broman J.-E.	151
Bromundt V.	P429, P584
Bronder K.H.	146, P925, P926
Brostrom A.	P651, P773, P774
Brouwers G.	P876
Brown R.E.	P812
Bruck D.	P343, P456, P457, P500, P781
Brugailleres P.	P821
Bruinenberg V.M.	194
Bruni O.	P717
Brunner D.P.	P429
Bruno R.M.	P678, P679, P693
Bruwier A.	P412
Brzozowski A.	53, 291, P577, P843
Bucca G.	81
Büchele F.	P503
Buck A.	227
Bucks R.S.	P446, P709
Buda C.	286
Budweiser S.	P889
Buijserd-Amesz P.P.	P928
Büki A.	P655
Bulgheroni M.	P649
Burgess H.J.	150, P426, P427, P428

Burkhardt R.	230
Buskova J.	P934, P935, P948
Butt H.	P500
Butyrina E.	P472, P683
Buyse B.	P381
Byberg L.	P411
Byles J.E.	P456
Byrkjedal I.K.	P832
Byun S.	P733
Cabré A.	P382
Caccamo L.	P693
Caccin L.	228
Caciagli L.	P972
Cai R.Y.	P1014
Cain N.	206
Cain S.W.	P849
Cajochen C.	54, 55, 137, 236, 278, P324, P337, P429, P567, P573, P584, P698
Cale M.	P620
Calhoun S.	208, 209, P1000
Calvel L.	240
Cámara R.	P502
Cambron L.	P465
Cameron M.	P400
Campbell R.	P759
Campos S.	P384
Canisius S.	P789
Capelli A.	148, P552
Carboncini M.C.	P366
Cardoso J.	P385
Cargioli M.	P679
Carlander B.	P477
Carlei C.	P460, P676
Carlsson I.	48
Carnevali L.	P824, P870, P972
Carrier J.	88, 90, 92, 197, 215, P371, P636
Carskadon M.A.	243
Carter N.	P352
Carvalho C.	P884
Casarotto S.	P318
Casitas R.	P634
Cassel W.	186
Castaño-Vinyals G.	295
Castelao E.	P967
Castellanos A.	P391, P392
Castren E.	238
Castro M.	P384
Castro Caldas A.	P946
Castro Gomez P.	P506
Català R.	P382
Catana L.	P700
Cavallero C.	P629a
Cayanan E.A.	263, P399
Centofanti S.A.	P613, P616
Cereda C.	256, P416
Cerny A.	P657
Cerri M.	P330, P331, P834
Cervena K.	P460, P676, P785
Cha S.	P483
Chadwick R.	P400
Chae K.-Y.	P1017
Chakar B.	P412
Chambe J.	P987
Chamorro R.	P1031, P1032
Chan K.	P509, P868
Chang C.-P.	P899
Chang F.-C.	P311
Changfu X.	P309
Chapman J.L.	P643
Chaufon C.	124, 148, P537, P552, P769
Chaves M.	P939

Chavoshi F.	P714
Chazova I.	P418
Chee M.	P553
Chellappa S.	53, 55, 61, 242, 244, 291, P375, P541, P561, P577, P843
Cheng G.	P553
Chennaoui M.	P844, P848
Chérasse Y.	P333, P808
Cheung G.	P868
Cheung J.M.Y.	P461
Chevrier E.	211
Chiang G.S.H.	P760
Chiaromanni F.	301
Chijavadze E.	P813, P815
Chikadze A.	P656, P964
Chikadze T.	P656
Chirlaque M.-D.	295
Chishaki A.	255
Chkhartishvili E.	P813, P815
Cho C.-H.	P350, P551
Cho J.W.	P638, P639
Cho Y.-J.	P630
Cho Y.W.	P448
Choi J.H.K.	194
Choi W.A.	P982
Chol S.	P902
Cholakova M.	P886
Choteau L.	240
Christensen J.A.E.	265, P538
Christensen S.R.	265, P538
Chrousos G.	P686
Chu M.K.	P933
Chung S.-C.	P435
Chung S.-K.	P474, P475, P611, P677, P739, P912, P951
Chung S.-C.	P786
Cicccone A.	294
Ciccolin A.	P725
Ciopat O.	P502
Cirignotta F.	294, P518
Claas F.	P914
Clark I.	P337
Clarke G.	P517
Claude L.	P325
Clayton E.	P1018
Clochon P.	P363
Cluitmans P.	P876
Clutterbuck-James A.L.	P400
Cobiletchi R.	P493
Coca A.	P384
Coelho C.A.O.	P558
Cohen G.	63
Cohrs S.	P336, P703
Colla M.	P751
Collado M.A.	P470, P950
Collette F.	242, 244, P561
Collins A.L.	258
Collins D.L.	P960
Collins L.	P368
Colombo M.	P698
Committeri G.	P364
Comtet H.	P380
Conduit R.	P592
Consales-Barras F.	44
Constantinidis T.C.	P837
Contal O.	P505
Cooper C.	P990
Cooper H.M.	61
Coppieters D.	P541, P546
Coppieters't Wallant D.	P843
Cordella A.	P890
Cordera P.	P460, P676

Cordone S.	P968
Corel L.J.A.	P1007
Corel L.	P1027
Corlateanu A.	P491, P493
Corny J.	P930
Correa L.	P867
Corrias M.	228, 301, P487
Cortelli P.	P731
Cosentino F.I.	P717
Cossa G.	P509
Costa J.M.	P852
Costa P.	P884
Costa R.	183, 228, 301, P487
Coste O.	148
Coughlin A.-M.	206
Cousins J.	198, P606
Couto D.A.	P532
Covassin N.	P788
Cowie J.	P1023
Cox R.	46, P362
Cravo F.	P1034
Cravo P.	P385
Cremascoli R.	296
Critelli H.	P342
Crivelli F.	P809
Crönlein T.	P938
Crunel V.	P571
Cruz F.	P871
Cryan J.F.	P517
Csabi E.	P668
Cuéllar-Ramos N.	P1033
Cui N.	169, P853
Cum F.	P941
Cunha D.	P513, P884
Cuthbert V.	P413
Czasak K.	P936
Czeisler C.A.	P347, P849
Czisch M.	247, 249, P355
da Silva C.F.	P532
Daan S.	108
Dacheva P.	P734, P886
Dadar M.	P960
Dagan Y.	P409
Dajas F.	P407
Dale A.	P608
Dalmau J.	266
Dang-Vu T.T.	58, P675, P960
Danielsson K.	151
Danilenko K.V.	P578
Danker-Hopfe H.	172, P372, P751
Darchia N.	P785
Dartigues J.-F.	P769
Darvell J.	P781
Darviri C.	P686
Darwent D.	P822
D'Atri A.	P329, P629, P968
Datunashvili M.	P328
Dauvilliers Y.	282, P477, P766, P931
Davidson P.	48
Davies M.G.	P400
Davies S.K.	169
De Azevedo M.H.P.	P532
De Blay B.	P325
de Boer M.	46, P362, P742
de Boer T.	109, P625
De Borja F.	P634
de Bruin E.J.	181, P589, P1010
De Carli F.	P962
De Gennaro L.	P329, P621, P629, P968
De Icco R.	296

De Koninck J.	P608
de Lacy S.	11k
De Lauzanne A.	P930
De Pittà C.	228, P487
De Rui M.	301, P487
De Simoni E.	P329
De Tiège X.	P587
de Vries X.H.	P658
de Weerd A.W.	P658, P949
de Wolf S.	P919
Dean D.C.	42
Debilly B.	267, P725
Deblois P.	P765
Deboer T.	288
Debrabant R.	P568
Décary A.	P636
Décima P.	204, P1011
Degache F.	P505
Degueldre C.	244, P561
Dehaas C.	P554
Dekker K.	P450
Del Castillo A.	P713
Del Olmo M.I.	P502
Del Vecchio F.	287, P330, P331, P834
Delanaud S.	204, P1011, P1022
Deleanu O.C.	P511, P877
Delesie L.	P510, P759
Delguedre C.	61
Deliens G.	47, P588, P612, P855
Della Marca G.	294, P731, P968
della Monica C.	P557, P566
Denison S.	P413
Deoni S.C.L.	42
Derks G.	P555
Derost P.P.	267, P725
Derry C.	160, 174
Desgranges B.	P363
Deshayes N.	P424
Desiato M.T.	P711
Desideri G.	P621
Desplats E.	P730
Desrochers-Couture M.	P689
Deussing J.M.	P810
Dewa L.H.	P455
Dewald-Kaufmann J.F.	P589
Dhondt K.	P1019
Di Coscio E.	P870, P972
Di Cristoforo A.	P330, P331, P834
Diamond N.T.	P456
Dias I.S.	P887, P966
Diaz M.	P502
Díaz M.	P407
Díaz-Otero F.	P958
Diessler S.	P430
Dijk D.-J.	21, 40, 52, 53, 75, 81, 201, 217, 226, 242, 244, 289, 291, P555, P557, P561, P566, P577, 614, P843
Dikeos D.	P686, P722, P776
Dimitrova E.	P734, P886
Dimmendaal S.	P1027
Dinan T.G.	P517
Dingemanse J.	P536
Diniz D.H.	P865
Dispersyn G.	P844, P848
Dittami J.P.	P840
Djavadkhani Y.	263, P399
Djeddi-Dine D.	P1022
Dockray S.	P575
Doekel Jr R.	147
Dogas Z.	1, 4, P659, P670

Dohnt H.	P998
Doidy F.	P363
Dolan C.L.	P457
Dolenc Groseelj L.	P635, P921
Dolgikh V.V.	232
Dolgikh V.	P402
Doll E.	P462, P463
Domagalik A.	P583, P857
Dominguez-Rubio R.	P958
Dominguez-Salazar E.	P627
Donjacour C.E.H.M.	P928
D'Onofrio P.	245, P326, P617
Donskaya O.	P615
Dore R.	P853
Dorffner G.	P536
Dorn H.	P372
Dorokhov V.B.	232, P530, P545, P829
Dorrian J.	P613, P616
d'Ortho M.P.	P315, P631
Doucette M.R.	42
Dowell A.	P770
Downes S.	P431
Doyon J.	88, 90, 92, 197, P371
Drabbels J.	P914
Draganova A.	P647
Drake C.L.	P693, P1005
Dreiss A.N.	64
Drepper J.	P789
Dressman M.	P308, P309, P433
Driessen C.	P996
Drogou C.	P844, P848
D'Rozario A.	260, P641, P642, P645
D'Sa R.	299
Duarte I.	P778, P779
Dubé J.	88, 90, 92
Dudorova E.	P524
Duffy J.F.	P347, P849
Dumitru M.M.	P305
Dunberry K.A.	91
Dupas B.	P631
Dupont L.	P381
Durif F.	267, P725, P727
Dúrr R.	227, P497
Duss S.	P633, P969
Dzadzamia S.	P813, P815
Eagan T.M.L.	P879
East C.L.	P400
Ecija R.	P384
Eckert D.J.	43
Economou N.-T.	P686, P776, P892, P981
Ediberidze T.	P963
Eggert T.	P372
Eichenlaub J.-B.	202
Eiken O.	P635
Einvik G.	119
Eisma M.	P471
Ejnell H.	P654
Ekimova I.	P795
Elavsky S.	207, 210
Elbaz M.	11a
Elder G.J.	P527
El-Deredy W.	P606
Elfimova E.	P418
Eligert V.	235
Elizishvili M.	P785
Eller T.	P715
Ellertsson S.	P682
Elliott K.J.	P347
Elliott R.	P359
Ellis J.	131, P441, P527

Elphick H.	P999
Embid C.	266
Emilsson Ö.I.	P915
Emsellem H.	P913
Endestad T.	297, P753
Engström I.	P701
Engstrøm M.	P957
Enomoto M.	P526
Erkhova D.	P497
Eskandari D.	P648, P653
Esmaili A.	P423
Espie C.	9, 13, 59, 163, P752
Estevez P.	P550
Eto H.	P724
Etzioni T.	120
Eustache F.	P363
Evangelista E.	P711
Evans A.	88
Evans H.	P999, P1013
Evdokimidis I.	P986
Eyal S.	P793
Ezzine F.	P634
Faes L.	P341
Fafrowicz M.	P583, P857
Faludi B.	P655
Fang J.	P387
Fantini M.L.	267, P725, P727
Faraut B.	P848
Fargion S.	P649
Faria C.	P444
Faria Junior N.S.	P894
Farquhar M.	P999
Fasmer O.B.	298
Fatseas M.	P568
Fattinger S.	P342
Fay D.	P361
Federspiel A.	290
Feige B.	56, 173, 253 , 292, P449, P596
Feldman N.	147
Ferguson S.A.	150, P426, P427, P428
Ferini-Strambi L.	73a, 106, P476, P480, P680, P704, P758
Ferland G.	91
Ferlazzo F.	P329
Fernandes C.	P946
Fernandez A.	P809
Fernandez C.	P1020
Fernandez I.	P634
Fernández-Bullido Y.	P958
Fernández-Lahera J.	P634
Fernandez-Mendoza J.	207, 208, 209, P1000
Ferrara M.	P329, P364, P621, P629, P968
Ferré R.	P382
Ferreira L.G.F.	P794
Ferreira M.	P443, P444, P445
Ferri C.	P621
Ferri R.	99, 267, P476, P480, P680, P717, P727, P1031, P1032
Ferrie J.E.	P766
Ficker J.H.	P549
Fietze I.	P368, P422
Figorilli M.	267, P725, P727
Filimonova K.B.	P530
Filtness A.	P618, P866
Finnema K.	P658
Fischer D.	P563
Fischer H.	245, P617, P767, P772, P831
Fischer U.M.	256, P416
Fischerova B.	P390
Fitzpatrick R.	195
Flachskamm C.	P804, P810, P842
Fliss D.	120

Flo E.	P705
Fogel S.	197, P371
Foldvary-Schaefer N.	P981
Fonseca N.T.	P887, P894, P966
Ford B.Q.	121
Fors C.	P905
Forsberg M.	P432
Forsman P.M.	P373
Fort P.	P333, P808, P854
Foster R.	299, P431, P585, P752
Fox-Rushby J.A.	P400
Fracanzani A.L.	P649
Franck E.	P932
Franco P.	86, P931
François C.	P344
Frandsen R.	265, P538
Frangi J.	256, P416
Frank M.	126
Franken P.	44, 79, 285, P335, P430
Franscini M.	P756
Franzen P.	114
Frase L.	173
Fratticci L.	294, P323, P962
Freeman D.	P752
Freestone D.R.	P369
Freitas S.R.B.	P965
Frent S.	P410, P1036
Fréret T.	P571
Frey V.	P580
Freyburger M.	P817
Friberg D.	P514, P988
Friess E.	P805
Frigerio P.	P323, P962
Frolova M.	P472, P683
Frussa-Filho R.	P852
Fukuda N.	P481
Fukushima E.	P533
Fukushiro D.F.	P852
Fulda S.	P721
Funk S.	P507, P754
G Rio F.	P634
Gabel V.	137
Gabel V.	54, 55, 236, P324, P573
Gabrielli A.	287
Gafarov V.	300, P494, P819
Gafarova A.	300, P494
Gaggioni G.	53, 200, 291, P375, P541, P577, P843
Gagnon J.-F.	92, P636, P893, P895
Gagnon K.	P636, P893, P895
Gagulin I.	300, P494, P819
Gahan L.	P368
Gaig C.	266
Gaines J.	208, 209, P1000
Gais S.	P355, P356
Galarza Jimenez M.A.	P506
Galbiati A.	P476, P704, P758
Galer S.	P587
Galic I.	P659
Galic T.	P659, P670
Galicia-Polo L.	P867
Galimova D.R.	232
Galitsin P.	P418
Galkova L.	P390
Gallardo A.	P779
Gallego J.	P315
Gallopín T.	P808
Gander P.H.	P770
Gannedahl M.	P646
Garbazza C.	P429, P573, P584
Garcia C.	P368

Garcia O.	P1020, P1021
Garcia de Leaniz J.	P506
García Leaniz J.	P771, P1038
Garcia Reyes J.C.	P391, P392
Garcia-Borreguero D.	14, 73b, 269
Garcia-Campos E.	P661, P663, P673, P687, P688, P867
García-Larrea L.	P325
García-Reyes J.C.	P393
Garefelt J.	P706
Gaskell G.	202
Gaspar T.	P1025
Gasperi A.	P758
Gast H.	P969
Gatta A.	301
Gaucher A.	60
Gaudreau P.	91
Gaudreault P.-O.	88, 90, 92
Gautvik K.M.	146
Gavlak J.	P999
Gavrilov Y.V.	279, P943
Gazea M.	287, P804, P842
Geerdinc L.	P586
Geerdink M.	P437
Geisler P.	P938
Gemignani A.	62, P825
Gentschow L.	P751
Genty G.	P424
Genzel L.	195
Gerstenberg M.	P756
Gevorkyan A.	P1006
Ghahramanyan L.	P975, P980, P985
Ghambaryan M.	P985
Ghiadoni L.	P678, P679
Ghika A.	P722, P986
Giannadaki K.	P875
Giannarakis I.	P492
Giannasi L.C.	P965
Giarolli L.	P758
Giaume C.	235
Gibson R.H.	P770
Gigli G.L.	294
Gilgen F.	P622
Gilon Y.	P412
Gilson M.	P588, P612
Giora E.	P704, P758
Giorgi F.S.	P972
Gislason T.	29, 144a, 272, P378, P718, P791, P880, P915
Givati G.	P409
Gjerstad M.D.	134, 135
Glos M.	P789
Glover M.	P400
Gnidovec Strazisar B.	P1026
Godbout J.	90
Godbout R.	91, 211
Göder R.	199, P747, P748, P917, P918
Godfrey K.	P990
Goel N.	168
Goerke M.	P336, P703
Gogatishvili N.	P963
Gögenur I.	P582
Gogichadze M.	P328
Goliger A.	P407
Gomes A.A.	P520
Gomes M.J.M.	P385
Gomes M.F.	P965
Gómez E.	P502
Gomez Acebo I.	295
Gómez-Ansede C.A.	P1033
Gómez-González B.	P627
Gomez-Herrero G.	P698

Gonçalves M.	68c, P515, P518, P699
Gonzalez M.	P375
Gonzalez R.	P358
Goodwin G.M.	299, P752
Gooley J.J.	140
Gordijn M.C.M.	P437
Gordon C.J.	59
Gorgoni M.	P329, P629, P968
Gosselin N.	92, P636, P893, P895
Gotera C.	P374
Gotera Rivera C.	P506, P508, P542, P771, P1038
Gotic I.	82
Gouin J.-P.	P675
Goy Y.	P505
Gradisar M.	150, 206, P426, P427, P428, P743, P991, P995, P998, P1002, P1003
Graf A.	P747
Granizo J.J.	269
Grapiglia S.B.	P852
Grassi D.	P621
Graus F.	266
Gravato Marques H.	193
Gravdahl G.B.	P957
Green D.	P1009
Grice H.	P1018
Griessenberger H.	49, P591
Grimsley F.	P554
Gringras P.	P999, P1009
Grob A.	205
Groeger J.A.	201, P517, P557
Groen L.-A.	P1019
Groenen I.	P625
Groenenboom P.	P345
Groet E.	P954
Gröhn M.	P597
Gromova E.	300, P494, P819
Gronfier C.	216
Gronli J.	297, 298, P322, P753, P832, P835
Grosse P.	P942, P979
Grote L.	24, 26, 67, 97e, 222, 262, P518, P549, P648, P653
Gruber G.	45, 122, P536, P593, P767, P768
Gruber W.	65
Grunstein R.	59, 260, 263, P399, P370, P641, P642 P645
GuardiaA.	P871
Gudmundsdottir S.	P378, P880
Guénard H.	P413
Guérolé F.	P363
Guerrero Sánchez M.D.	P479, P1029
Guest J.F.	P646
Gugger M.	256, P416
Gugutsidze D.	P964
Guida M.	P972
Guidolin M.	P995
Guillard M.	P844, P848
Guillem A.	P713
Guillemainault C.	P507, P754
Guinó E.	295
Gulati S.	P398, P879
Guleria R.	233, P501
Gundlach A.L.	P369
Gupta A.K.	P501
Gutierrez C.	P384
Guyer C.	P694
Guzeev M.	P795
Gúzman de Villoria J.	P713
Gvilia I.	83, P556
Gyorfi M.	P881
Gyori-Dani D.	P599
Györik S.	256, P416
Haasnoot G.	P914
Haba Rubio J.	117, P504, P505, P728, P967

Habek M.	P564
Häbel H.	262
Haedel S.	293
Haeggström E.	P373
Häfliger F.	P694
Hagen K.	P957
Haghighi K.S.	P451
Hagmann C.	196
Hagmann-von Arx P.	205
Haimov I.	P464, P620, P744
Hallgato E.	P599
Hamada Y.	P952
Hamburger H.L.	164
Hamilton G.S.	264
Hanes C.A.	P787
Hang L.-W.	P899
Hanoulle I.	P510
Hansen M.-L.	P372
Häntzsch M.	230
Harand C.	P363
Harbacj M.	P789
Harlid R.	P646
Härmä M.	153, 229, P439, P576, P624, P800
Haro R.	P661, P663, P687, P688, P1020, P1021
Haro-Valencia R.	P391, P392, P393, P671, P672, P673, P867
Harrison P.J.	P752
Harro J.	17, P741
Hartley S.	P858
Haruyama N.	P531
Harvey A.	165
Harvey N.	P990
Hasan J.	P548
Hasan S.	P585
Hasegawa-Ohira M.	P310
Hashimi A.	P708
Hassan L.	P455
Hassan M.	P632
Hassani H.	P521
Havekes R.	194
Haybaeck J.	279
Hayley A.C.	P910
He F.	207, 210
Heath M.	P1003
Hedner J.	97b, 262, 274, P549, P646, P648, P653
Hefti K.	227
Hegerl U.	230
Heib D.	49, 65, P356, P591, P601, P602
Heier M.S.	146
Hein H.	P396, P422
Hein Y.	P396
Heinicke L.	P809
Heino O.	P548
Heinzer R.	117, P504, P505, P728, P967
Hekmatmanesh A.	P351, P528, P604
Held C.	P550
Heneghan C.	P368
Henelius A.	P439
Hennies N.	198
Henning A.	227
Henriksen T.E.G.	298, P322
Hensch T.	230
Hernández-Flix S.	P382
Hertenstein E.	P440, P449
Hesla P.E.	P438, P925
Hida A.	P526
Hidalgo H.	P944
Hidalgo M.	P958
Higuchi S.	P459
Hilditch C.J.	P613, P616
Hill C.M.	P990, P999, P1013, P1018

Hill E.	11d, 133b
Hilton-Jones D.	P970
Himanen S.-L.	18, P547, P548, P1012
Himmer L.	P356
Hion T.	19
Hitrec T.	P330, P331, P834
Hobzova M.	P666, P667
Hödlmoser K.	P591
Hodor A.	284
Hoebeke P.	P1019
Hoedlmoser K.	45, 49, 144, P593, P602
Hoek P.	P484
Hoekema A.	P658
Hoekstra T.	P696
Hoeve H.L.J.	P1024
Hoeve L.J.	P1027
Hoffmann W.	271
Hofman W.F.	P742, P954
Högl B.	161
Hollais A.W.	P852
Holländare F.	P701
Holmes B.	169
Holmström A.A.V.	P373
Holmström M.	P499
Holsboer-Trachsler E.	205
Holst S.C.	50, 227, 241
Holterman C.	P601
Holzinger B.	P697
Hommès V.	P324, P437, P578
Honda M.	P922
Honda T.	P907
Hong S.B.	P630, P908 , P923
Hong S.C.	P447, P911
Hooke N.	P1009
Hoque S.	P981
Horiuchi S.	P581
Horne J.	P518
Horswill M.S.	P826
Horvath T.	256, P416, P633, P969
Horváth K.	268
Hosken I.T.	P369
Hoskuldsson S.	29
Hosokawa K.	118
Hough S.	P836
Houslay M.D.	194
Hoyos C.M.	263, 264, P399
Hristova A.	P647
Hrubos-Strøm H.	119, P682, P874
Hu G.	P388
Huang K.-C.	P899
Hubbard I.	P380
Hubbard J.	240, P380
Huber R.	170, 196, P342, P622, P694, P756, P971, P1016
Hublin C.	153, P512, P597
Huerta R.	P661, P663, P673, P687, P688, P1020, P1021
Huerta-Delgado A.-D.	P393, P671, P672, P673
Hügli G.	P332
Huhtakangas J.	P955
Huhtakangas J.	P955
Huhtala H.	118
Hukkanen T.	P888
Hunkeler P.	P694, P1016
Hunsberger M.	P792
Huotilainen M.	P312, P365, P590, P597
Hurtado-Alvarado G.	P627
Hüsser A.	196
Hut R.A.	108
Huupponen E.	P548
Huutoniemi A.	P973
Huynh N.	P730

Hwang K.J.	P733
Hwangbo Y.	P933
Hyvärinen H.K.	P780, P859
Ibarra-Coronado E.G.	P1020
Ibarretxe D.	P382
Ibsen R.	273
Ichimizu T.	P349
Iglesias A.	P634
Iglesias A.	P958
Igloi K.	200
Ihström J.	P905
IJsseldijk I.B.M.	P652
Ijzerman A.P.	P625
Ikonen H.	240
Illanes M.	P1031, P1032
Iloti M.	P927
Im H.	P579
Imanishi A.	P823, P952
Imbach L.L.	P984
Imeri L.	P824
Imre M.	P655
Imschoot J.	P465
Indursky P.A.	P530, P545
Ing A.	P509
Ingre M.	P836, P845, P905
Innos K.	P496
Inocente C.O.	P931
Inoue Y.	P403, P467, P644, P1005
Inskip H.	P990
Iranzo A.	176, 219, 266
Ishikane T.	P481
Ito E.	P644
Ito K.	P310
Itoh E.	P403
Ivers H.	P681
Iversen H.K.	116, P419, P421
Ivkovic N.	P659, P670
Izadi N.	P619
Izaghour M.	P901
Izzi F.	231, P711, P720, P729, P890, P929, P941
Jaatela J.	P801
Jackson C.	P856
Jackson M.L.	P456, P500
Jaghatspanyan M.	P975
Jaju D.	P632
Janacsek K.	P598, P599, P668
Jancheva D.	P734
Jansson C.	P915
Jansson-Fröjmark M.	95, 151, P452, P701
Jarallah M.	P984
Jardim J.R.	P894
Jareno J.	P384
Jarrad T.	P529
Jarrin D.C.	P681
Jaspar M.	242, 244, P375, P482, P541, P561
Jaussent I.	P477, P766
Javier A.T.	P650
Jawinski P.	230
Jemel B.	211
Jenkins S.	P1013
Jenni O.	P342, P584, P694, P756, P1016
Jennum P.	16, 116, 162, 265, 273, P419, P421, P538
Jeong J.	P357
Jeong J.-H.	P475, P611, P912
Jermann F.	P460, P676
Jernajczyk W.	P936
Jernman R.	P1040
Jibladze M.	P964
Jimenez S.	44, 283
Jiménez Moleón J.J.	295

Jimenez-Correa U.	P1021
Jobbe-Duval Mesa S.	P603
Jogi R.	P915
Johannssen A.	P915
Johannsson G.	P682
Johansson K.	P307
Johansson P.	P651, P773, P774
Johnsen S.	P557, P614
Johnston L.A.	P369
Jon D.-I.	P474, P475, P611, P739, P912, P951
Jonassen T.M.	P879
Jones B.	P960
Jones L.M.	P770
Jongedijk R.A.	P742
Jongen S.	P623, P860
Jonsson L.	P499
Jönsson P.	48
Joo E.Y.	P908, P923
Joo S.H.	P911
Joosse M.V.	P436
Joosten K.F.M.	P996, P1001, P1007, P1024, P1027, P1028
Jordan A.S.	43
Jordan J.	P400
Jörres R.	P889
Juliusson S.	P880
Jung K.-Y.	P861
Junghanns K.	P747
Juozapaitienė A.	P685
Jurkojc C.	P374, P506
Jurysta F.	P341
Kabiljo R.	81
Kadokami T.	P907
Kadotani H.	P637
Kaik J.	34
Kajantie E.	P594
Kala R.	P379
Kalinchuk A.	P812
Kallestad H.	152
Kallweit U.	P937, P944
Kamaleri Y.	146, P926
Kamasova M.	P666, P667
Kamei Y.	P459
Kamphuis J.	P306, P749
Kan K.	P572
Kanbayashi T.	P823, P952
Kang D.	P406
Kang S.-W.	P982
Kang S.-G.	P350, P551
Kang S.-H.	P415, P425
Kanis J.	P994, P997
Kantojärvi K.	P801
Kaprio J.	P512
Kara T.	P390, P665
Karadeniz D.	P920, P959
Karamyan A.	P980, P985
Karashima A.	P816
Karhula K.	P439
Karimi M.	224, 262, P653
Karlsson D.	P836
Karlsson K.	P841
Karlsson L.	P738
Karni A.	197
Kasagi S.	P644
Kasamatsu N.	P408
Kaselow L.	199
Kasenömm P.	31
Kashyap N.	P360
Kasradze S.	P963
Katayama N.	P816
Katayose Y.	P526

Kato Y.	P316
Katona G.	P668
Katsunuma R.	P526
Katz N.	P442
Kaufmann L.	196
Kawasawa Y.I.	210
Kayabekir M.	P878
Kayser M.	169
Kecklund G.	245, P326, P570, P609, P617, P706, P836, P845, P905
Kemethofer M.	P840
Kemlink D.	P726, P948
Kempler L.	P690
Kennaway D.	P427, P458
Kennedy G.	P781, P910
Kennedy P.J.	P517
Kerkhof G.A.	P436, P540
Kervran C.	P568
Khachatryan S.	P975, P978, P980, P985
Khajeh-Mehrizi A.	P906
Khan S.	P790
Khatami R.	102, P332
Khayrallah M.	147
Khemliche H.	P765
Khorrami A.	P351, P604
Khuchua L.	P656, P964
Kiefer F.	P703
Kikuchi S.	P349
Kilic-Huck U.	P987
Kim D.	P630
Kim D.	P645
Kim D.	P982
Kim D.-J.	P639
Kim E.-J.	P664
Kim H.	58, P908
Kim H.J.	P539
Kim H.J.	P394, P630
Kim J.H.	P630, P707
Kim J.-S.	P579
Kim J.W.	P327, P370, P641, P645
Kim K.T.	P638, P639
Kim K.W.	P415
Kim L.	P350, P551
Kim M.-D.	P474, P475, P611, P739, P912, P951
Kim S.	P828
Kim S.J.	P495, P902
Kim S.J.	P828
Kim S.J.	P692
Kim S.H.	P664
Kim S.Y.	P447
Kim T.	P357, P415, P425, P716, P812
Kim T.W.	P447, P911
Kim W.-J.	P522, P933
Kimura M.	251, 287, P804, P810, P842
King B.R.	197
Kingshott R.	P999
Kinn Roed A.M.	P322
Kitamura S.	226, P526
Kitamura T.	P660
Kivimaki M.	229, P439, P468, P766, P800
Kiviruusu O.	P738
Kiziria M.	P964
Kjellberg J.	273
Klarhöfer M.	54, 137, 236
Klatzmann D.	P932
Kleemann Y.	P889
Klemets T.	P836
Klimesch W.	65
Kloesch G.	P580, P697, P840
Kloos R.	P569
Kluge M.	P313

Knudsen S.	146, P925, P926
Kobayashi M.	P644
Kobayashi T.	P783
Koch H.	P538
Kodama T.	P922
Koenig T.	290, P806
Koerner D.	45, P602
Kogevinas M.	295
Kohsaka M.	P481
Kojima Y.	P783
Kolarz A.	P810
Kolek V.	P666, P667
Kolesnikova L.	P402, P764
Kolesova E.	P524
Kolios G.	P640
Kolodiuk F.F.	P794
Komada I.	P660
Komada Y.	P1005
Komatsu T.	P349
Kondrahina I.	P1006
Konofal E.	P931
Konradi A.	P524, P669
Konsta A.	P686, P776
Korhonen I.	P775
Korjoukov I.	P362
Korkmaz B.	P959
Körmendi J.	268
Korostovtseva L.	P524, P534, P669
Korsic Š.	P635
Koscec A.	P839
Koskenvuo M.	P512
Kosmadopoulos A.	P822
Kostianev S.	P647
Kotilahti K.	P891
Kottlow M.	P806
Koudstaal M.J.	P1024, P1028
Kougkas D.	P837
Koumar O.-C.	P571
Koupparis A.	P986
Kousha O.	P431
Kovalska P.	P948
Kovalzon V.M.	232
Koyama Y.	P531
Kozhevnikova O.	P1006
Krabbe K.	P419
Krahn L.E.	P523
Krainnock K.	194
Krásenský J.	P935
Krayem A.	P869
Kremer I.	P744
Kretz R.	P979
Kristensen E.	P1037
Kronholm E.	203, P574
Krueger J.	246
Kruuse U.	37
Ktonas P.	P776
Kübler A.	178
Kübler A.	P994, P997
Kubo T.	P349
Kubota H.	P952
Küchler G.	P422
Kuelz A.K.	P440
Kuhl J.	P401
Kuhn M.	P596
Kulkas A.	P543, P544, P883, P888
Kumar D.	P810, P842
Künne T.	P401
Kunz D.	293, P361
Kuo C.-P.	P435, P786
Kupari S.	P543, P544, P888

Kurth S.	42
Kussé C.	P561
Kussée C.	242, 244
Kuula-Paavola L.	P594
Kuusimäki S.	P547
Kwon O.-H.	P923
Kwon Y.-J.	P474, P475, P611, P739, P912, P951
Kyle S.D.	59, 94, P449, P455
Kylliäinen A.	P798, P801, P1012, P1030
Kylstra W.A.	P954
Kyrozis A.	P722, P986
Laak K.-J.	P607
Laatikainen T.	203, P574
Laba T.	P461
Labra A.	P391, P392, P393, P661, P663, P671, P672, P673, P687, P688, P867, P1020, P1021
Lachance S.	P684
Lack L.	75, 150, P307, P426, P427, P428, P457, P458, P466, P529
Lafond C.	P893, P895
Lafortune M.	88, 90, 92
Lai C.	P913
Laing E.E.	81
Laks L.	P509
Lallukka T.	P820
Lambert A.	211
Lambon Ralph M.A.	198
Lammers G.J.	101, 103, P914, P928, P937
Lamy M.	P681
Lancee J.	74b, P471
Lancel M.	P306, P749
Landmann N.	P596
Landolt H.	50, 55, 227, 241, 277, 285, P497, P567
Landry S.	P592
Landtblom A.-M.	P940
Lang U.	P429
Langhans W.	P497
Langner D.	P751
Langsrud K.	152
Lanza A.	294, P323, P962
Larsson H.B.W.	P419
Lassila K.	P1040
Latal B.	196
Latour P.	P344
Lau E.Y.Y.	P595, P605, P838
Lau K.N.T.	P595, P605, P838
Laukka P.	P831
Laures M.	P332
Lauretti B.	P720
Lauri G.	P629, P968
Laurino M.	62, P825
Lavault S.	P931
Lavedan C.	P308, P432, P433
Lazar A.S.	52, 81, 201, P614
Lazar Z.I.	52
Lazarus M.	P333, P808
Lazo P.	P374
Lazo Meneses P.	P506, P508, P542, P771, P1038
Le Bon O.	P338
Le Bourdieu F.	P482
Le Bourgeois M.	42, 89, 113
Le Hellard S.	P799
Leatherbarrow B.	P431
Lebel J.	60
Leboucher J.	P568
Lecendreux M.	P930, P931, P932
Lechinger J.	65
Lee B.	P750
Lee C.S.	P357, P415, P425, P716
Lee D.-H.	P551
Lee E.Y.W.	P838

Lee E.-I.	P350
Lee H.-J.	P350, P551
Lee H.K.	P993
Lee H.K.	P539
Lee J.	P692
Lee J.G.	P739
Lee J.H.	P522
Lee J.H.	P692
Lee J.J.M.	P760
Lee J.-S.	P327
Lee K.	P474
Lee K.J.	P539
Lee K.H.	P475, P611, P739, P912, P951
Lee P.-L.	P899
Lee S.D.	P415, P425
Lee S.Y.	P474, P475, P611, P677, P739, P912, P951
Lee S.K.	P902
Lee Y.J.	P828
Lee Y.S.	P448
Leemann J.	P622
Léger D.	148, P433, P518, P552, P844, P848
Lehmann S.	P398, P879
Lei Z.	P386, P388
Leidmaa E.	P804
Leissner L.	P712
Leitão J.A.	P532
Leitão Filho F.S.S.	P894
Lekander M.	245, P617
Léké A.	204, P1011, P1022
Lelkes Z.	P321
Lemaire-Hurtel A.-S.	P1022
Leminen M.	P312, P365, P590, P597
Lemola S.	205
Leong R.	P553
Leppänen T.	P543, P544
Leproult R.	47, P612
Lesku J.A.	P818
Levin O.S.	P736
Lewis D.	P500
Lewis P.	198, 202, P359
Lewis P.	P606
Li J.	P406
Li S.	P335
Li X.	P387
Liang B.	P386, P388
Liang D.	P388
Liao D.	207, 208, 209, 210, P1000
Liao W.-C.	P435, P786
Libert J.-P.	204, P1011
Liboni F.	P1015
Libourel P.A.	P333, P854
Licamele L.	P308, P309
Lie E.	P874
Liguori C.	231, P711, P729, P890, P929, P941
Lillo-Triguero L.	P713, P958
Lima A.M.	P794
Limme M.	P412
Lin J.-S.	63, 280, 286, P319
Lin M.-J.	P899
Lin Y.	P903
Lina J.-M.	88, 90
Lindahl B.	P411
Lindberg E.	32, P411, P499, P767, P768
Lindberg U.	P419
Lindholm H.	P439
Lindström J.	229
Linkowski P.	P341
Linton S.	P452
Lintulahti A.	P851
Lipponen J.	P547

Litvin A.	P418
Liu J.	P386, P388, P903
Liu P.Y.	264
Liu X.	235
Liuhanen J.	P798
Ljunggren M.	P411
Lo J.C.Y.	81, P553, P614
Lo Martire V.	63, 287, P319, P320
Lo Russo G.	P318
Loas G.	P341
Lochmuller H.	P970
Lockley S.	P308, P309
Loehrer L.	P483
Löffler S.	P657
Loftus A.M.	P709
Loh K.K.	P553
Lombardi C.	294
Lopes F.	P520
Lopes J.	P513, P884
Lopez R.	P477
López Domínguez J.M.	P479
Lopez-Jimenez F.	P788
Losurdo A.	P731
Louter M.	P710
Louzada F.M.	P348
Lovato N.	150, P426, P427, P428, P458, P466, P529, P743, P995, P998, P1003
Lowden A.	P586
Lozoff B.	212, P757, P1031, P1032
Luca G.	283, P504
Lucas R.	P518
Lucassen E.A.	P625
Ludka O.	P390, P665
Luechinger R.	290
Lueking M.	P440
Luís P.	P1034
Lujber L.	P655
Luketina N.	P601
Lukyanova E.A.	P530
Luna B.	212
Lund A.	298
Lundquist A.-C.L.	P653
Luppi M.	P330, P331, P834
Luppi P.H.	5, 190, P333, P628, P808, P854
Lupusor A.	P896
Lustenberger C.	P622
Luxen A.	61, 244, P561
Ly J.Q.M.	53, 61, 291, P375, P577, P843
Lyashenko E.A.	P736
Lykiardopoulos C.P.	P343
Lyshov V.F.	P784
Lyshova O.V.	P489, P490, P784
M Silva B.	P884
Maćkiewicz M.	P540
Maasilta P.	P389
Madaeva	P402, P764
Maeda K.	P403
Mäenpää J.	P1040
Maestri M.	P680, P870, P972
Magerøy N.	P799
Magistretti P.J.	235
Maglakelidze N.	P813, P815
Magnin M.	P314
Magnusson Hansson L.L.	P706
Magrini M.	P366
Maire M.	54, 55, 137, 236, P573
Mairesse O.	P338, P855, P862
Maisuradze L.	P963
Makridakis G.	P986
Malafeev A.	P809
Malaut A.E.	P511

Malhi O.	P675
Malick M.	91
Maltez J.	P515, P699
Mamelak M.	P913
Mañas E.	P374
Mañas Baena E.	P506, P508, P542, P771, P1038
Mancini C.	P929
Manconi M.	256, P320, P416, P480, P633, P680, P717, P721
Mancuso V.	P678, P679
Mandai O.	P783
Manfredi A.	P1015
Mang G.M.	44
Manidou M.	P640
Mann A.	169
Manni R.	296
Manolov A.I.	232
Mao Y.	P868
Maquet P.	53, 197, 242, 244, 291, P375, P482, P541, P546, P561, P577, P843
March J.	P871
Marchat J.	P344
Marchi A.	P729, P929, P941
Marciani M.G.	231, P720, P729, P890, P929, P941
Marcoen N.	P862
Marek T.	P583, P857
Marelli S.	P476, P704, P758
Marfia G.A.	P720
Margarit L.	P631
Maric A.	P622
Mári-Kawamoto E.	P852
Mariman A.	P510, P759
Marinazzo D.	P341
Mariotti M.	P318
Markelov V.V.	P545
Markou M.	P640
Markström A.	151
Marom O.	P777
Marques A.	267, P725, P727
Marques-Vidal P.	P504
Márquez A.	P1029
Marqueze E.C.	P865
Marshall N.S.	263, P399, P643
Martelli D.	P369
Martikainen S.	P594, P807
Martikainen K.	P973
Martin J.	P999
Martin Sanchez V.	295
Martínez M.	P634
Martini L.A.	P900
Martinkenas A.	P485, P761, P762
Martinot J.B.	P413
Martins A.J.	P900
Martins da Silva A.	P513, P884
Marti-Soler H.	P728
Marttunen M.	P738
Martynhak B.	289
Mary A.	P603
Marzano C.	P629
Masana L.	P382
Masi G.	P1015
Massimini M.	53, 248, 291, P318, P340, P577, P843
Massin P.	P631
Mastorci F.	P825
Mataciuniene D.	P685
Matev L.	P404, P405
Mathijssen I.M.J.	P996, P1001, P1007, P1024, P1028
Mathis J.	145, P924, P969
Matos M.G.	P1025
Matoulek M.	P934
Matrot B.	P315
Matsui M.Y.	P965

Matsuki T.	P755
Matsuno A.	P533
Matsuo M.	P637
Matt E.	P691
Matthäi I.	199
Mattson A.	P322
Mauche N.	230
Maurer L.F.	P347
Mauri M.	P678, P679, P693, P1015
Mauroudi E.	P875
Mauss I.B.	121
Mazza S.	P325
Mccabe P.	201
McCarley R.W.	P812
Mccaughey E.	P1013
Mcdaniel D.	P1023
McEvoy D.	P642
McEvoy R.D.	P641
McGaughey K.	P507, P754
Mchedlidze O.	P813, P815
McKenna J.T.	P812
McLachlan R.	264
McMurtrie H.	P352
McNally J.M.	P812
McNicholas W.	68d, 70, 97a, 223, P518
Medina-Chavez J.H.	P661, P663, P672, P673, P687, P688, P1021
Meerlo P.	112, 166, 194
Meftah S.	P628
Mehlmann J.L.	P563
Meijer A.M.	179, 181, P589, P1010
Meijer J.H.	P625
Meira e Cruz M.	P778, P779, P909
Mekjavic I.B.	P635
Melehan K.	264
Melinder A.M.	297, P753
Melis M.	294
Mello M.T.	P434
Méndez Lucena C.	P479
Menéndez De León C.	P479, P1029
Meng A.	P462, P463
Menicucci D.	62, P825
Mercadillo R.	P358
Mercuri N.	231, P711, P720, P729, P890, P929, P941
Merikanto I.	P559
Merilahti J.	P775
Mermigkis C.	261, P492, P875
Mermigkis D.	P492
Mermikides M.	155
Mervaala E.	P543, P544, P883, P888
Mestre C.	P367, P846
Metspalu A.	P798
Meyer C.	61, 242, 244, P375, P541, P561, P987
Meyer-Heim A.D.	P971
Miano S.	P680, P969
Michaëlsson K.	P411
Michalzyk M.A.	P401
Michelakis S.	261
Micheu M.M.	P511
Micic G.	150, P426, P427, P428, P529, P998, P1003
Middleton B.	169, 228, 242, 244, P487, P561
Midgren B.	P1037
Midorikawa T.	P533
Midtlyng E.	146, P925, P926
Migliorati F.	P696
Mignot E.	279, P927
Miguel M.A.L.	P794
Mihaicuta S.	P410, P877, P1036
Mihaltan F.D.	P511, P877
Mihanovic F.	P659
Mihnev N.	P734, P886

Mihov M.	P734, P886
Mikaili M.	P351, P604
Mikeladze D.	P328
Mikhail C.	239, P796
Milde A.M.	297, P753
Miliauskas S.	P898
Milkov M.P.	P404, P405
Miller C.B.	59
Millesi E.	P580
Miloslavsky M.	149
Min K.-J.	P474, P475, P611, P739, P912, P951
Minamino H.	P533
Mineiro A.	P385
Mioč M.	P564
Mirambeaux R.	P374
Mirambeaux Villalona R.	P506
Mirnik D.	P635
Mishima K.	P459, P526
Mitani T.	P349
Mitic S.	P874
Miura J.	P755
Miyagawa T.	P922
Miyazaki S.	P660
Mo X.	P386, P388
Modig L.	P915
Moen B.E.	P799
Moen M.	P345
Moens S.	P450
Moens S.	P1013
Moghadam K.K.	P927
Moguchaya E.	P524
Moiseenko L.S.	232
Moldovanu I.	P896
Molinari L.	P694, P1016
Moller H.J.	P906
Moller-Levet C.S.	81
Mollicone D.J.	P572
Mongrain V.	185, P817
Moniaki V.	261
Monoi N.	P533
Montagnese S.	228, 301, P487
Montano N.	P323, P324, P649
Montplaisir J.	P636, P893, P895, P913
Moon H.J.	P448
Moore D.	P1009
Moore N.	148
Moradinia M.	P423
Moran R.J.	291
Morán Jiménez M.J.	P713
Morawska M.M.	P503
Moreau A.	P657
Moreno C.R.	P865, P900
Moreno V.	295
Moreno-Galera M.D.M.	P1033
Morgan K.	10
Mori K.	P1039
Moriguchi Y.	P459, P526
Morin C.	P681, P684
Morin L.	P383
Morjaria R.	P431
Morrell M.J.	P400
Morris R.	87, 195
Morrison S.A.	P635
Moseley L.	206
Moser D.	P691
Moshovos C.	P986
Motomura Y.	P459, P526
Moul D.	P981
Moussay S.	P571
Mouthon A.-L.	P971

Mrdalj J.	P322, P835
Muench M.	293
Muhlethaler M.	P600
Mukaddirov M.	P632
Müller N.G.	P336
Mullins A.E.	59
Münch M.Y.	P849
Muraja-Murro A.	P543, P883, P888
Murakoshi M.	P533
Murphy P.	11e
Musińska I.	P936
Muto V.	242, 244, P375, P482, P541, P561, P843
Myachykov A.	P441
Myllymaa K.	P544
Myllymaa S.	P544
Nachkebia N.	P813, P815
Nacif S.R.	P887, P965, P966
Nahapetyan N.	P985
Nakai M.	P783
Nakajima S.	P1005
Nakamura Y.	P533
Nakao K.	P907
Nakao M.	P816
Nakata S.	P403
Nakayama H.	P644
Nakazaki K.	P526
Nalbantoglu M.	P920
Nam B.	P750
Namazova-Baranova L.	P1006
Namtvedt S.K.	119
Nandhan V.	P501
Nanovska S.	292
Naqvi H.	P642
Naran R.	P417
Näsi T.	P891
Naus N.	P996
Navarro-Abia V.	P1033
Navin C.	11f
Nazemi E.	P420
Nazzaro M.	P711
Nedev P.	P404, P405
Nemcova V.	P935
Nemeth D.	P598, P599, P668
Nemsadze M.	P328
Nena E.	P516, P640, P837, P892
Nermann O.	262
Netzel T.	P396
Neu D.	P338, P855
Neuzeret P.-C.	P383
Nevsimalova S.	85, P726, P934, P948
Newell J.	P855
Neykov N.	P734, P886
Ngo H.-V.	171
Nicola A.C.	P865
Niemelä P.	153
Niemelä V.	P940
Nijdam M.J.	P742
Nilsonne G.	245, P617
Nilsson L.-G.	P772
Nilsson M.	P654
Nishihara K.	P581
Nishikawa M.	P660
Nishimura K.	P531
Nishino H.	P533
Nishino S.	P823, P952
Nishizaka M.	255
Nissel H.	P462, P463
Nissen C.	56, 173, 253, 292, P440, P449, P596
Nissilä I.	P891
Nitti A.	P890

Nizamani A.	P792
Noain D.	284, P503
Nobili L.	105, 256, 294, P318, P323, P340, P416, P962
Nødtvedt Ø.O.	P832
Nollet M.	289, P814
Nollo G.	P341
Nomura S.	P310, P316
Nonclercq A.	P587
Nordin M.	P772
Nordstrand S.H.	P925
Norell-Clarke A.	P452, P701
Norton G.	P417
Nowozin C.	293, P361
Nozaki K.	P459, P526
Nozawa T.	P478
Ntolios P.	P516
Nunes P.S.	P939
Oba K.	P459, P526
O'Byrne J.	P675
O'Donoghue F.	258
Ogasawara T.	P408
Oginska H.	P583, P857
O'Gorman R.	196, 290
Ogrizek P.	P433
O'Hare E.	P368
Ohayon M.	P507, P754
Ohkusa T.	255
Ohli J.	P938
Ohnami H.	P531
Ohtsu H.	63, P319
Oka Y.	P724, P1039
Okawa M.	P660
Olafsdottir A.K.	272
Olafsdottir K.A.	29, P378
Olaithe M.	P446
Olbrich E.	89
Oldani A.	P476, P480
Olf M.	P742
Olive J.	P537
Oliveira C.S.	P965
Oliveira E.F.	P887, P966
Oliveira L.V.F.	P887, P894, P965, P966
Oliveira M.G.M.	P558
Ollila H.M.	229, 237
Olsen A.	152
Omland T.	119
Omlin X.	P809
Omokawa M.	P952
O'Muircheartaigh J.	42
O'Neill A.	P517
O'Neill S.	P575
Oniani N.	P328, P785
Oort F.	181, P345, P589
Oorta F.J.	179
Op De Beeck M.	P587
Openshaw H.	P641, P642
Orellana G.	P550
Orhan O.	P897
Orlov A.	P524
Oscroft N.	P400
Osland T.	P799
Oster H.	80
Ott S.R.	256, P416, P633
Ouayoun M.-C.	P765
Oudiette D.	142
Ousdal O.T.	297, P753
Overeem S.	P710, P876, P919
Öztura I.	P719, P961
Pařízek A.	P726
Paajanen T.	P312, P597

Paavonen J.	P798, P801, P1012, P1030
Pace M.	P626
Pack A.I.	P880
Pagni C.	P870
Paiva T.	P367, P377, P515, P699, P846, P847, P939, P1025, P1034, P1035
Pajedienne E.	P514, P988
Palacios A.	P671
Palagini L.	P678, P679, P693, P1015
Palchykova S.	284
Pallesen S.	154, 297, P322, P705, P753, P799, P832, P835
Palomäki E.	P339
Palva M.J.	P318
Pan C.	P406
Pan F.	P388
Pandis D.	P986
Pangalu A.	P622
Pankakoski M.	P738
Panov D.	300, P819
Panula P.	P851
Papachilleos S.	53, 291, P577, P843
Papadogiannis G.	P492
Papageorgiou S.	P776
Papanas N.	P837
Papantoniou K.	295
Paparrigopoulos T.	P776
Papon A.	P930
Paradisi P.	62
Paralescu S.	P410, P1036
Parapatits S.	122
Parati G.	71, 97f, 294
Pargent F.	P355
Paris M.	P424
Park C.S.	P992
Park J.U.	P539
Park J.	P828
Park S.H.	P639
Park S.-H.	P579
Park Y.K.	P923
Parkes L.	P606
Parlak Ö.	P719
Partinen M.	76, 102, 270, P512, P518, P715, P723, P916, P940, P973
Partonen T.	229, P574
Pasco J.A.	P910
Pastukhov Y.	P795
Patchev A.V.	P804
Patti C.L.	P852
Pattyn N.	P862
Paul	P345
Paunio T.	23, 35b, 203, 229, 254, P312, P365, P574, P590, P597, P798, P800, P801, P1012, P1030
Pavličková J.	P726
Pavlova G.V.	232
Pecis M.	P649
Pedemonte M.	P407
Pedrera A.	P374
Pedrera Mazarro A.	P508, P1033
Peever J.	191
Peigneux P.	36, 39, 47, 68a, 302, P518, P587, P588, P603, P612, P855
Peirano P.	212, P550, P757, P1031, P1032
Peiro R.	295
Peirson S.	P585
Pekar J.	P599
Pekcan C.	P570
Peled E.	P442
Peled N.	P442
Pelkonen M.	P738
Pelusi S.	P649
Penner M.	P503
Penninx B.W.	57
Pentti J.	P468
Penzel T.	2, 4, 97d, P368, P549, P789

Pepin J.L.	66, 72, 133d, P413, P631
Peraita-Adrados R.	P713, P958
Peralta A.R.	P946
Perchet C.	P325
Pereira A.T.	P520
Pereira B.	267
Pereira S.I.R.	P348
Perez C.	P550
Perez E.	P330, P331, P834
Perez J.M.	P661
Perez Rodriguez E.	P506
Perier M.	286
Perkinson-Gloor N.	205
Perola M.	P800
Perrault A.	P600
Perrier J.	P623, P860
Perrig S.	P600
Perry A.	P991
Perry C.	P433
Perusse A.D.	P689
Pesonen A.-K.	P594, P807
Peter A.	P372
Peter-Derex L.	P314
Petersen H.M.	P326
Petersen M.	P1037
Petit J.-M.	235
Petrini L.	256, P416
Petrovic P.	245
Petrovický P.	P935
Petzka M.	P593
Pevernagie D.	12, 66, 175, P510, P876, P919
Peyron C.	P628, P854
Pfeifer M.	P889
Phelan M.	202
Philip P.	68e, 124, 148, P537, P552, P568, P746, P769, P858
Phillips C.	53, 61, 244, 291, P375, P541, P546, P561, P577, P843
Piano C.	P731
Piarulli A.	62, P825
Pickering R.	P999
Pierantozzi M.	P711
Pieren R.	P337
Pieri G.	P366
Pierre A.	P817
Pigorini A.	P318, P340
Pilkaukaite G.	P898
Pillar G.	120, P442, P777
Pindmaa M.	33
Pindmaa M.	P945
Pinto J.	P387
Pinto J.C.	P377, P1034, P1035
Pinto T.R.	P939
Piosczyk H.	173, P596
Pittman .A.	P400
Pizza F.	294, P927
Pizzella V.	P364
Placidi F.	231, 294, P711, P720, P729, P890, P929, P941
Plazzi G.	P927
Plchová L.	P726
Pocora D.	P877
Podlipskyte A.	P485, P741, P761, P762, P820
Poirrier A.-L.	P412
Poirrier R.	P344, P412, P465
Pölkki P.	P798, P801, P1012, P1030
Pollatos O.	P361
Polo O.	100, 118, P1040
Poluektov M.G.	P736
Polymeropoulos M.	P308, P309
Pombo D.	P385
Ponsaing L.	116, P419, P421
Popp R.	P889, P938

Porcheret K.	P752
Porkka-Heiskanen T.	22, 167, 229, 237, 238, P321, P624, P801, P1030
Porkkanen-Heiskanen T.	P851
Portillo E.	P1020, P1021
Poryazova R.	P622, P943
Postnova S.	123
Prados G.	P325
Pratt K.	P1009
Prehn-Kristensen A.	P747
Preisig M.	P504, P967
Preiss A.	P756
Probst-Hensch N.	P337
Proserpio P.	294, P318, P323, P340, P962
Provini F.	98, 159, 294
Puchkova A.N.	P530, P829
Puiu L.M.	P674
Pujol M.	P871
Puligheddu M.	267, 294, P725, P727
Pulixi E.	P649
Pullens B.	P1027
Purbrick R.	P431
Pushpanathan M.E.	P709
Putilov A.	P525, P560, P615
Puttonen H.	P851
Puttonen S.	153, 229, P439, P576, P780, P800, P859
Pylchenko S.	P491
Pylkkönen M.	P780, P859
Qi M.	P332
Qiong O.	P397
Qncheva D.	P886
Quah J.H.M.	P760
Quan Z.	P386
Quera-Salva M.A.	P433, P746, P858
Quercia A.	P364
Quigley E.	P517
Quinnell T.G.	P400
Quint C.	P1013
Quintiliani I.	P731
Rabat A.	P844, P848
Radosevic-Vidacek B.	P839
Radun I.	P845, P905
Radun J.	P845
Rae C.D.	260
Raes A.	P1019
Rahbeck Komum B.	77
Rahkonen O.	P820
Räikkönen K.	P807
Räikkönen-Talvitie K.	P594
Raimondi M.	P552
Ramaekers J.G.	P860
Ramaekers J.G.	P623
Ramalheira J.	P513, P884
Ramautar J.	P698
Ramirez A.	P1021
Ramirez M.	P1020, P1021
Ramos I.	P1029
Ramos V.	P939
Randby A.	119
Randerath W.	68, 189, 257, 259, P549
Raskin S.	P412
Rasskazova E.I.	P702
Rath A.	293
Rattenborg N.C.	64, 127, P803, P818
Rauchs G.	136, P363
Ravid S.	P744
Ray L.B.	P371
Raynaud F.I.	169
Reaven N.	P507, P754
Rebelo Pinto H.	P377, P847, P1034, P1035
Rebelo-Pinto T.	P377, P1034, P1035

Redaelli T.	P323, P962
Reddy H.	279
Reddy R.	P856
Reed L.	P675
Regen W.	56, 292, P449
Regnault A.	P932
Rego S.	P445
Reichert C.F.	54, 55, 137, 236, P573
Rein H.	P945
Reis C.	P367, P846
Rennart G.	P777
Rennie C.J.	123
Reshef A.	P744
Reske M.	51
Reutrakul S.	P488
Revell V.L.	169
Revishchin A.V.	232
Revonsuo A.	203, P574
Reyes S.	212, P550, P757
Reynolds C.	P991
Reynolds C.F.	292
Reynolds J.	P999
Rhie S.-K.	P1017
Ricci F.	P1015
Ricco I.	P870
Richdale A.	P737, P745, P1014
Riedy S.M.	P572
Riemann D.	56, 173, 253, 292, P440, P449, P596, P703
Riener R.	P809
Riha R.	103, 133a, 157, 177
Rihel J.	234
Rijsman L.	P484
Rimpilä V.	118, P1040
Ringot M.	P315
Riontino L.	P629a
Risina B.	P711
Ritchie K.	P766
Rivera F.	P407
Rizopoulos D.	P996
Roach G.D.	P822
Robertson R.	169
Robinson P.A.	123
Robinson S.	P990
Rocchi C.	P720
Rocchi R.	294
Rochefort A.	P681
Rock P.	299
Rod N.H.	P468
Rodenbeck A.	P703, P789
Rodero A.	P384
Rodríguez A.	P393
Rodríguez-Gonzalez A.	P391, P392
Rodriguez-Colon S.	207
Roenneberg T.	P563
Roest B.	P345
Rogers P.	P509
Rogoza A.	P418
Rogoza R.	P540
Rohling L.C.	P658
Rojas O.	P1031, P1032
Roky R.	P901
Roman A.	P628
Romigi A.	231, P711, P720, P729, P890, P929, P941
Ronda J.M.	P347, P849
Rongen E.F.E.R.	P569
Roos N.D.	P484
Rööslä M.	P337
Rosales-Mesa Y.	P779, P909
Rosales-Rodriguez S.	P462, P463
Rosanova M.	53, 291, P318, P577, P843

Rosenberg J.	P582
Rosenberg J.	51
Rosenzweig M.	P932
Rosinvil T.	88
Ross M.	P657
Rossato J.	195
Rossi A.	187
Rossini P.M.	P329, P968
Rost-Ernst A.E.W.G.	P569
Rostrup E.	P419
Rotar O.	P524, P669
Roth C.	145, 256, P416, P633, P969
Roth T.	149
Roulin A.	64
Rousseau G.	91
Rubio M.	P502
Rubio P.	P502
Rudolph H.	293
Ruiz A.	P358
Ruiz F.S.	P434
Ruiz Chow A.	P470, P950
Rumbold J.M.	P473
Rundo F.	P717
Ruoff C.	147, P507, P754
Ruppert E.	240, P380, P987
Rush C.	P1009
Rusnac N.	P610
Rvacheva A.	P418
Ryder L.	202
Saarenpää-Heikkilä O.	P798, P801, P1012, P1030
Saaresranta T.	118, 133c, P955
Sabater L.	266
Saberi-Moghadam S.	239
Sadegh Niyat K.	P420
Sadeghniaat K.	P604, P619
Sadeghniaat-Haghighi K.	P351, P423, P521, P528, P714, P740, P906
Safadi A.	120
Sagaspe P.	124, 148, P552, P746, P769
Sagawa Y.	P823, P952
Sahakyan K.	P788
Saini B.	P461, P787
Sakai N.	P952
Sakalauskas R.	P898
Sakhelashvili I.	P785
Salehi G.	P521
Saletu B.	P462, P463
Saletu-Zyhlarz G.	122, P462, P463
Salih F.	P942
Salimi A.	P960
Sallinen M.	153, P439, P624, P780, P859
Salmi T.	P891
Salminen A.	100, 118, P1040
Salo P.	P468
Salomaa V.	229, P800
Salvadè A.	P320
Sambusida K.	P323, P962
Sampaio L.M.	P894
Sanchez A.	P527
Sanchez E.	P1020, P1021
Sanchez Escandon O.	P470, P950
Sánchez-Narváez F.	P391, P392, P393, P661, P663, P671, P687, P688, P867, P1020, P1021
Sand T.	152, P957
Sandelin M.	P712
Sander C.	230
Sanders A.	238
Sandman N.	203, P574
Sandu A.R.	P511
Sangenís S.	P382
Sankey R.	P1018
Sanner B.	P549

Santamaria J.	107, 266
Santhi N.	81
Santhi N.	201, 226
Santos C.	P385
Santos I.R.	P887, P894, P965, P966
Santos M.V.	P434
Santos R.	P852
Santos S.R.	P894
Saraei M.	P714, P906
Sarasso S.	291, P318, P340, P577, P843
Sargent C.	P822
Sarkanen T.	P916, P940, P973
Särkkä M.	P543
Sarrasso S.	53
Sartori I.	P340
Sasaki H.	P755
Sato E.	P349
Sato M.	P823
Sato S.	P823
Satterfield B.C.	P572
Saure E.	P312, P365, P590, P597
Sauter C.	P372, P751
Sauteraud A.	P537
Sauvagnac R.	P858
Sauvet F.	P844, P848
Savov G.	P734
Sawatari H.	255
Saxvig I.W.	154, P398, P879
Scammell T.E.	279, 287
Schabus M.	45, 49, 65, 121, P356, P591, P601, P602
Schalkwijk F.	P450
Scheffler K.	54, 137, 236
Scheidegger M.	227
Scherzer P.B.	211
Scheuermaier K.	P417
Schier A.F.	234
Schindler K.	P969
Schiza S.E.	261, P492, P875
Schläpfer A.	290
Schlarb A.	8, 178, 180, P376, P833, P994, P997
Schlünssen V.	P915
Schmand B.	P954
Schmidt C.	54, 55, 137, 236, P573, P584
SchmittB.	P342
Schmitt W.J.	P924
Schmitz R.	47, P587
Schneider J.	P606
Schnell M.	P396
Scholtz S.	P931
Schönauer M.	P355, P356
Schormair B.	P726
Schramm E.	P440
Schredl M.	74c, P376
Schreier D.	145, P924
Schreuder K.E.	P658
Schrick C.	P335
Schroder C.	P987
Schroth S.A.	P416
Schrouff J.	P546
Schwartz J.-C.	281
Schwartz J.	149
Schwartz S.	200, P600
Schwarz J.	245, P617, P767, P768
Schwerdtle B.	178, P994, P997
Scriba M.F.	64
Seibert P.	P554
Seidel S.	P691, P840
Seidl Z.	P935
Seifinejad A.	P802
Seifpour S.	P351, P604

Seifritz E.	227
Seiler A.	P633, P969
Seko T.	P533
Semenova N.	P764
Senior J.	P455
Senny F.	P413
Seo J.-G.	P630
Seppä J.	P414, P544
Sepper R.	P496
Serra Brandão M.	P847
Serre F.	P568
Setoguchi Y.	P644
Sgoifo A.	P824
Shaffii - Le Bourdiec A.	242, 244, P482
Shafran Y.	P620
Shah N.J.	51
Shahrabani S.	P409
Shakarishvili R.	P964
Shakhnarovich V.M.	P545
Shams-Hosseini N.-S.	P740
Shanahan F.	P517
Shanshiashvili L.	P328
Shapira C.	120
Sharman R.	P527
Sharpe L.	P690
Sharples L.D.	P400
Shatil E.	P464
Shaw J.	P455
Sheaves B.	P752
Shigematsu Y.	P922
Shih T.T.-F.	P899
Shimizu T.	P660
Shimizu T.	P823, P952
Shin C.	58
Shin H.-B.	P327
Shin W.C.	P733
Shirokova I.	P1006
Shkurovich Bialik P.	P470, P950
Shlyakhto E.	P669
Sholokhov L.	P764
Shon H.S.	P716
Short M.	206, P991, P995, P998
Shumov D.E.	P530
Shylo O.	P334
Siafakas N.M.	261, P492, P875
Sieminski M.	270, P723
Sierra I.	P384
Siewert R.	P789
Sif Arnardottir E.	11j, 29, 144b, 213b
Sigmundsdottir S.	272
Sigurðardóttir A.G.	P791
Sihvola M.	P780, P859
Siilak T.	11g
Silander K.	P800
Silva L.	P513, P884
Silvani A.	63, 287, P319, P320
Silvestri R.	73c, P870
Sim B.L.H.	P760
Simeonova A.G.	P734, P886
Simonelli V.	P711
Simonova V.	P795
Simor P.	268
Singh Y.	233
Sircu V.	P491, P493
Skeldon A.	P555
Skene D.	3, 156, 169, 228, 213a, P487
Skorge T.D.	P915
Skorucak J.	P809
Skrede S.	298, P322
Slak A.	81

Slama H.	47
Smart K.	258
Smith C.P.	81
Smith I.E.	P400
Smith M.	P789
Smith R.	P466
Smith S.S.	P826, P827
Smits M.	179, P345, P484
Smulders T.V.	P803
Soares C.	P443
Sobieray U.	P336
Socci V.	P621
Sockeel S.	P371
Soenens B.	P759
Sohn I.	P830, P1017
Solheim B.	152
Solis J.E.	P391
Solis-Rodríguez J.E.	P393, P663
Solito M.	P731
Solodova E.	P764
Somers V.K.	P323, P788
Sommariva M.	P962
Sommerauer M.	241, P984
Sommermeyer D.	P549
Song H.R.	P951
Song M.L.	P448
Song P.	P861
Sonka K.	P726, P934, P935, P948
Sontheimer J.	P536
Sõõru E.	30, 38, 303, P496
Sopp R.	180
Sorbi M.	P471
Sorensen H.B.D.	265, P538
Sosorburam T.	P519
Soucy J.-P.	P895
Sousek A.	285
Sova M.	P666, P667
Sovova E.	P666, P667
Spada J.	230
Sparrow A.R.	P572
Sparrowhawk M.	P1008, P1009
Spiegelhalder K.	56, 93, 253, 292, P440, P449, P596
Spinar .	P390, P665
Spinas G.A.	P497
Spitalnick J.	P1023
Spitzenstetter F.	P610
Spruijt B.	P996, P1001, P1007
Šrůtková Z.	P726
Štěpánová R.	P665
Staempfli P.	290
Stagni E.G.	P962
Staikov I.	P734, P886
Stankovic V.	P868
Steiger A.	P313, P805
Steinebach H.	11b
Steiropoulos P.	P516, P640, P837, P892
Steiropoulos S.	P516, P640
Stenberg T.	P797, P798, P1012
Stenson G.	289, P814
Stepanova R.	P390
Stepanyan T.	P975, P985
Stéphan-Blanchard E.	204, P1011, P1022
Steponaviciute R.	P898
Sterpenich V.	143, 200
Sterr A.	173
Stevens D.	P641, P642
Stjern M.	P957
Stockenhuber D.	P462, P463
Stoffers D.	57
Stolzlechner L.	P580

Storsaeter J.	146
Stovner L.J.	P957
Stoyanov I.	P734, P886
Stracuzzi M.	P649
Strandholm T.	P738
Strecker R.E.	P812
Strobel W.	54, 137, 236
Sturzenegger C.	P937, P944
Sugafuji T.	P533
Sugiyama K.	P533
Suh I.B.	P692
Suh S.	58
Sulkava S.	229
Sun N.	P406
Sundelin T.	P831, P850
Sunnergren O.	P651
Supatashvili M.	P785
Supe-Domic D.	P670
Sutherland C.	P1003
Sutton H.	P947
Suzuki K.	P403
Svanborg E.	P651
Svanes C.	P915
Svensson M.	P499
Sverke M.	P706
Sviryaev Y.	P524, P534, P669
Swaab H.	P354
Sweeney M.	269
Sweere Y.	P698
Sweetman A.	P458
Swick T.	147, P913
Sylvia F.	P584
Syoji Y.	P481
Szakacs Z.	P881, P882
Szentagotai A.	P353, P469
Szentkirályi A.	271
Sztendur E.M.	P456
Szymanski C.	P318
Szymusiak R.	P556
Tacchi A.	P1015
Taddei S.	P678, P679
Taddei Garcia R.	P735, P943
Tafti M.	102, 117, 128, 239, 283, 285, P335, P504, P728, P796, P802, P967
Taheri S.	P346
Tailard J.	P746
Taillard J.	124, 148, P552, P568, P769
Takahara M.	P310, P349
Takahashi T.	P952
Takata N.	P1039
Talamini L.	46, P362, P450, P742
Talavera D.	P856
Tamburro G.	P364
Tamm S.	245, P617
Tan S.	P446
Tanaka K.	P408
Tanaka T.	P660
Tang C.-T.	P899
Taranov A.O.	P829
Tardón A.	295
Tarnutzer A.	P622
Tarokh L.	243
Tarquini E.	P890
Tarrago R.	P358
Tascilar N.F.	P732
Tasker R.C.	P996
Tassi P.	P610
Tataraidze A.	P534
Tatishvili N.	P963
Tavadyan Z.	P978
Tecedeiro M.	P367

Teder-Laving M.	P945
Telliez F.	204, P1022
Tempesta D.	P621
Tenhunen M.	P547, P548
Teran G.	P358
Teran Pérez G..	P470, P950
Téran Santos J.	P518
Terasawa Y.	P459, P526
Terrier C.	P628
Terzaghi M.	294, 296
Terziyski K.	P647
Tesler N.	P756
Tessier S.	211
Testa M.	P407
Testelmans D.	P381
Thakkinstian A.	P488
Thankachan S.	P812
Theorell-Haglöw J.	P411, P499, P767, P768
Thiel N.	P440
Thorsby P.M.	146
Þorsteinsson H.	P841
Thumser A.E.	169
Thun E.	P799
Thune H.	245, P617
Thusoo S.	P657
Tibi S.	45, P602
Ticinovic Kurir T.	P659, P670
Tigerström L.	P609
Tiihonen P.	P543, P544, P883, P888
Tikhomirova O.	P472, P683
Tillfors M.	P701
Tinguely G.	P337, P567
Tisdale R.K.	P818
Tkachenko O.N.	P530, P829, P864
Tobaldini E.	P323, P649
Tobback E.	P510, P759
Tobback N.	117, P504, P728, P967
Tobler I.	288
Todosijevic M.	P921
Tognoni G.	P870
Togo F.	P349
Tokunaga K.	P922
Tokunou T.	255
Toncheva V.	P734
Topaloğlu Ö.	P878
Toppila J.	P891
Torres R.	P308
Torres T.	P502
Toth I.A.	P410, P1036
Tourneux P.	204, P1011
Töyräs J.	P543, P544, P883, P888
Trakada A.	P892
Trakada G.	P892
Trenkwalder C.	271
Trimmel K.	P691
Trombin T.F.	P852
Troshina Y.V.	P782
Truchot J.	P315, P631
Truglia I.	P968
Tsavlīs D.	P516, P837
Tschoner S.	P580
Tseng C.H.	P838
Tsimpanouli M.-E.	P359
Tsitlidze E.	P656
Tsomaia V.	P813
Tsoukas E.	P986
Tsuiki S.	P403
Tsuno K.	P349
Tucker A.M.	50
Tucker P.	P468

Tufik S.	P434, P558, P852
Tuka V.	P934
Tuncel D.	P897
Tuomilehto H.	P414, P544
Turco M.	228, 301, P487
Turek F.	184
Turgeon K.	P689
Turner C.	P970
Tüshaus L.	290, P806
Twisk J.	P696
Tzischinsky O.	P409, P620
Uchiyama A.	P533
Uetsu M.	P637
Uhr M.	P313, P805
Ujma P.	268
Ukrainitseva Y.V.	232
Ulander M.	P651, P773, P774
Ulla M.	267, P725
Ullvetter C.	P836
Ulmeanu R.	P877
Unice A.	P572
Uotila J.	P1040
Urade Y.	P533
Urbain C.	P587
Urbano J.J.	P887, P894, P966
Urdanibia O.	P502
Urrila A.S.	P738
Urry E.	P497
Ursin R.	P835
Urtnasan E.	P539
Vadas L.	P744
Vagiakis E.	P722, P776
Vaher H.	31
Vaht M.	P741
Vahtera J.	229, P439, P468, P800
Vaiksaar R.	11g
Vainikka M.	P851
Vakulin A.	P552, P641, P642, P643, P645
Valdes-Pineda V.	P391, P392, P393
Valencia Garcia S.	P333
Valenti L.	P649
Valentini M.	P364
Valerio J.	P554
Valgardsdottir A.	P378
Valic Z.	P670
Valko P.	279, P735, P943, P983, P984
Valko Y.	P983
Vallée A.	P684
Valli K.	74a, 203, P574
Vallières A.	P684
Valomon A.	55, 241
Van Beers P.	P844, P848
van Bennekom C.A.M.	P954
van Bezeij T.	P954
Van Bogaert P.	P587
Van Cauter E.	P488
van den Aardweg J.G.	P954
van den Bout J.	P471
van der Heide A.	P914
van der Heijden K.B.	P354
Van der Lely S.	P584
van der Meij J.	P803
van der Meijden W.P.	P928
van der Schroeff M.P.	P1024, P1028
van der Veen D.R.	81
van der Wee N.J.	57
Van Der Werf Y.D.	P450
van der Zande B.M.I.	P586
van Diepen H.C.	P625
van Dijk H.	P876

Van Dongen H.P.A.	276, P572, P613, P616
van Driel J.	46
van Gilst M.	220
van Hedel H.J.A.	P971
Van Herzeele C.	P1019
van Kasteel V.	11h
Van Leeuwen W.	P569, P570, P624, P836
van Lieshout M.	P1024, P1028
van Maanen A.	179, P345
van Mierlo P.	P919
van Rijn E.	202, P352
van Rijn K.J.	P436
van Schie M.	275
Van Someren E.	57, 96, 130, P354, P450, P593, P696, P698
van Straten A.	P471, P695
van Tol M.J.	57
van Veelen-Vincent M.L.C.	P996
Vande Walle J.	P1019
Vandekerckhove M.	P862
Vandenbussche N.	P876
Vandewalle G.	53, 61, 138, 242, 244, 291, P375, P541, P561, P577, P843
Vandi S.	P927
Vaneckova M.	P935
Vansteenkiste M.	P759
Vanttola P.	153, P576
Varin C.	P808, P854
Varol A.	P732
Varoneckas G.	P485, P741, P761, P762, P820
Varouchakis G.	P492
Vasar V.	31, P715
Vassalli A.	P335
Vasser M.	P811
Vat S.	117, P505
Vaucher A.	283, P796
Vaugier I.	P858
Veauthier C.	P974
Vecchierini M.-F.	P433
Vela-Bueno A.	207
Velazquez J.	P358, P470, P950
Velázquez J.M.	P958
Velázquez-Moctezuma J.	P627
Veldi M.	15, 31
Velin R.	P365
Velluti R.	P407
Veltman D.J.	57
Ventouras E.C.	P776
Ventskovska O.	P334, P797
Verbanck P.	P338, P855
Verbraecken J.	25, 27, 188, 225, 257, 259
Verduijn W.	P914
Vergouwen P.	P345
Verheulpen D.	P587
Verleden G.	P381
Verly J.	P344
Vermeeren A.	P623, P860
Vermeulen M.C.M.	P354
Verrey C.	196
Verspaandonk M.	11c
Vetter C.	P563
Vgontzas A.	129, 207, 208, 209, P1000
Vicaut E.	P631
Vicini C.	28
Vidal T.	P725
Vien C.	197
Vienne J.	283
Viitasalo K.	153, 229, P576
Vikram N.K.	233, P501
Vilaseca I.	266
Villegas F.	P384
Vinai P.	P480

Vincent A.	P483
Vincenzi R.A.	P348
Viola A.	54, 55, 137, 236, P324, P380, P573
Viramo P.	P775
Virdis D.	P731
Virella D.	P385
Virgillito A.	P366
Virkkala J.	153, P312, P365, P547, P590, P597
Virolainen S.	P715
Virtanen J.	P891
Vitello N.	267, P725
Vitikainen P.	P389
Vivakanandhan S.	233
Vogelaers D.	P510, P759
Voinescu B.I.	P353, P469
Vollenweider P.	P504
Völzke H.	271
von Schantz M.	81
Vorderwülbecke B.J.	P979
Vos R.	P381
Voule S.	P842
Vovc V.	P700, P896
Vurman E.	P860
Vutova V.	P734, P886
Vuurman E.	P623
Vyazovskiy V.	125, 158, 288, P853
Vyssotski A.L.	64
Waanag E.	146
Waeber G.	P504
Wafford K.	7, 289
Wahde M.	P845
Wahlin Å.	P773, P774
Wahner-Roedler D.	P483
Wahnschaffe A.	293, P361
Wali S.	P708, P869
Waliniowska E.	P936
Walitza S.	P756
Walker M.P.	202, P450
Wallis L.	P840
Wang D.	P370
Wang H.	P903
Wang J.	P387
Wang L.	P387
Wang T.	P648
Wang T.-Y.	P899
Wang W.	P849
Ward K.E.	P347
Warnaar I.	11b
Wassing P.F.	P450
Watkins E.R.	P446
Watkins K.	P431
Watling C.N.	P826, P827
Watson A.	P866
Weber B.	P460, P676
Weber J.	44
Weber K.P.	P983
Weber P.	205
Wehrle F.	196
Wei Y.	P387
Weil P.	P449
Weinhold S.	199, P747, P748, P917, P918
Wellman A.	43
Welsh G.	P483
Wenzel K.	P675
Werner G.G.	121
Werner H.	P694, P1016
Werth E.	P622, P735, P943, P983
Wertz J.	P344
West S.	P970
Westerholm P.	P772

Westerlund H.	P706
Wetter T.	P889, P938
Wettstein C.	P622
White D.P.	43
Wichniak A.	P540, P936
Wiedemann K.	P703
Wieland W.	P889
Wierzbicka A.	P936
Wiest R.	P633
Wiggs L.	P1008, P1009
Wigren H.-K.	238, P797, P851
Wilhelm F.H.	121
Wilhelmsen-Langeland A.	154
Williams L.J.	P910
Williamson P.	P1002, P1003
Wilson A.	P827
Winkelmann J.	P726
Winkler S.A.M.	P735
Winkler Y.	299
Winsky-Sommerer R.	6, 35a, 289, P814
Winterer G.	P703
Wirz-Justice A.	110, P584
Wisłowska M.	49, P591
Witteman B.	P484
Witters N.	P465
Wolkow L.	P936
Wolfe J.	P991
Wollweber B.	P313
Wolvius E.B.	P1024, P1028
Wong C.	P608
Wong K.	260, 263, 264, P399, P641, P642, P645, P787
Wong M.L.	P595, P605, P838
Wood L.	P970
Woodiwiss A.	P417
Wörsching J.	P355
Worsnop C.	258
Wright B.	P1009
Wright H.	P458, P466
Wright K.	139
Wu H.	P387
Wu J.	P789
Wu W.-D.	P899
Wu Y.	P388
Wulff K.	299, P431, P752
Wunderli J.-M.	P337
Wuo-Silva R.	P852
Xanthoudaki M.	P516, P640
Xiao C.	P308
Xie Y.	P386, P388
Yadav Y.S.	P501
Yakupov E.Z.	P782
Yamada N.	P637
Yamagami K.	P755
Yamaguchi S.	P755
Yamaguchi Y.	P724
Yamamoto M.	279
Yamori M.	P637
Yanagiba Y.	P349
Yanagihara M.	P644
Yang C.	P868
Yang C.	P812
Yang K.I.	P933
Yano T.	P408
Yao L.	P387
Yasenkov R.	P625
Yassouridis A.	P313
Yazdanfar A.	P528
Yazdi Z.	P423
Ye J.	P406
Yee B.	263, 264, P399, P643

Yi P.-L.	P311
Ylikoski, A.	P973
Yokouchi S.	P755
Yoon B.-H.	P474, P475, P611, P739, P912, P951
Yoon D.W.	P902
Yoon H.-K.	P350, P551
Yoon I.-Y.	P357, P415, P425, P716
Yoosefian M.	P451
Yoshida M.	P907
Yoshimura A.	P637
Yoshimura C.	255
Youn S.Y.	P357, P716
Young P.	256, P416
Yserbyt J.	P381
Yu C.-J.	P899
Yuan X.	P387
Yuasa T.	P755
Yun C.-H.	P579, P902, P933
Zaffaroni A.	P368
Zairova A.	P418
Zaiwalla Z.	P1009
Zaki N.F.	299
Zamani O.	P714
Zamboni G.	P330, P331, P834
Zant J.	238, P812
Zapletalova J.	P666, P667
Zappasodi F.	P364
Zarogoulidis P.	P892
Zavalko I.	232, P702, P721
Żechowski C.	P540
Zeitlhofer J.	P976
Zhan X.	P387
Zhang P.	P406
Zhang V.	P675
Zhang X.	P872, P873
Zhang Z.	P332
Zhao Y.	286
Zhou X.	P822
Zimberg I.Z.	P434
Zimmerman C.	P554
Zimmerman S.	234
Zitting K.-M.	214, P347, P849
Zoccoli G.	63, 287, P319, P320
Zoetmulder M.	265, 273, P538
Zou D.	P549, P646, P648, P653
Zrek N.	P765
Zschoche M.	P376, P833
Zubler F.	P633, P969
Zucconi M.	P476, P480, P680, P717, P758
Zvartau N.	P669
Zybina N.	P472, P683
Zykov K.	P418