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IULIU HAȚIEGANU
UNIVERSITY OF
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CLUJ-NAPOCA
ROMANIA



"IULIU HAȚIEGANU" UNIVERSITY
OF MEDICINE AND PHARMACY
DOCTORAL SCHOOL

NEUROSCIENCE PROGRAM

2018-2019 | SECTION 2

FRIDAY, 18 JANUARY | UMF "IULIU HAȚIEGANU" | CLUJ-NAPOCA | ROMANIA



PhD NEUROSCIENCE PROGRAM COORDINATOR



Dafin F. Mureșanu

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Chairman of EAN Communication and Liaison Committee

President of the European Federation of
NeuroRehabilitation Societies (EFNR)

Past President of the Romanian Society of Neurology

Professor of Neurology, Chairman Department of
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Full Professor of Neurology and Chair,
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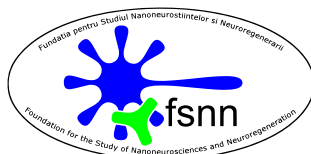
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COURSE PROGRAM

COURSE PROGRAM

JANUARY 18TH, 2019

"ALEMAN AUDITORIUM"

"IULIU HATIEGANU" UNIVERSITY OF MEDICINE AND PHARMACY

CLUJ-NAPOCA, 8 VICTOR BABES STREET

09:50 – 10:00

Dafin F. Mureşanu /Romania
Welcome Address

10:00 – 10:30

Claudio Bassetti /Switzerland
Sleep and Neurology

10:30 – 11:00

Claudio Bassetti /Switzerland
Sleep-related movement disorders (SRMD)

11:00 – 11:30

Coffee Break

11:30 – 12:00

Claudio Bassetti /Switzerland
Sleep-related epilepsy

12:00 – 12:30

Claudio Bassetti /Switzerland
Sleep and Dementia

12:30 – 14:00

Session Break

14:00 – 14:30

Claudio Bassetti /Switzerland
Sleep, sleep-wake disturbances (SWD) and Stroke

14:30 – 15:00

Claudio Bassetti /Switzerland
Narcolepsy and CNS hypersomnolence disorders



INTERNATIONAL GUEST LECTURER



CLAUDIO BASSETTI

SWITZERLAND

Claudio Bassetti was born and raised in Ticino (Southern Switzerland), is married and father of three boys, speaks six languages and enjoys history, literature, music, sports, and travelling.

He received his MD degree from the University of Basel in 1984. He trained in neurology in Bern and Lausanne (FMH certification in 1992) and performed research fellowships in basic neurophysiology (Basel, 1985-1986) and sleep medicine (Ann Arbor-Michigan, USA, 1995-6). In 1997 he became associate professor at the University of Bern. In 2000 he was appointed professor of neurology at the university of Zurich and director of the neurological outpatient clinics of the university hospital. In 2009 he founded the Neurocenter of Southern Switzerland in Lugano which he directed until 2012. Since 2012 he is full professor of neurology at the University of Bern and director of the neurology department at the University hospital.

Claudio Bassetti authored eight books and over 400 scientific publications. His research interests include sleep, stroke, and movement disorders with a translational (human and animal/experimental) approach.

He served as president of the European Neurological Society (ENS, 2013-4), European Sleep Research Society (ESRS, 2008-12) and Swiss Neurological Society (SNG, 2008-12). He was the founder and first president of the Swiss Federation of Clinical Neurosocieties (SFCNS, 2009-2013). He is the current vice-dean of the Medical Faculty of Bern. He is an honorary member of the Belgian Neurological Society (2009) and of the European Academy of Neurology (EAN, 2015). In 2018 he became an elected member of the Swiss Academy of Medical Sciences.

REPRESENTATIVE PUBLICATIONS

- 1) Bassetti C, Aldrich M, Chervin R, Quint D. Sleep apnea in patients with TIA and Stroke. A prospective study of 59 patients. *Neurology* 1996
- 2) Bassetti C, Aldrich MS. Idiopathic hypersomnia. A series of 42 patients. *Brain* 1997
- 3) Bassetti C, Vella S, Donati F. SPECT during Sleepwalking. *Lancet* 2000
- 4) Khatami R, Maret S, Werth E, Rétey J, Schmid D, Maly F, Tafti M, Bassetti CL. A monozygotic twin pair concordant for narcolepsy-cataplexy without any detectable abnormality in the hypocretin pathway. *Lancet* 2004
- 5) Schwartz S, Ponz A, Poryazova R, Werth E, Boesiger P, Khatami R, Bassetti CL. Abnormal activity in hypothalamus and amygdala during humour processing in human narcolepsy with cataplexy. *Brain* 2008
- 6) Pace M, Baracchi F, Gao B, Bassetti C. Identification of sleep-modulated pathways involved in neuroprotection from stroke. *Sleep* 2015
- 7) Brill AK, Horvath T, Seiler A, Camilo M, Haynes AG, Ott SR, Egger M, Bassetti CL. CPAP as treatment of sleep apnea after stroke- a meta-analysis of randomized trials. *Neurology* 2018
- 8) Leemburg S, Gao B, Cam E, Sarnthein J, Bassetti CL. Power spectrum slope is related to motor function after focal cerebral ischemia in the rat. *Sleep* 2018
- 9) Latorre D, Kallweit U, ...Bassetti C*, Sallusto F*. T cells in patients with narcolepsy target self-antigens of hypocretin neurons. *Nature* 2018 (*co-shared last authors)



ABSTRACTS

SLEEP AND NEUROLOGY

CLAUDIO BASSETTI

INTRODUCTION: the main theories on the function of sleep (neuronal restoration/ integrity^{1,2}; learning/memory consolidation³⁻⁵; energy saving/allocation⁶) and the principles of sleep staging/scoring and sleep-wake regulation are presented.

EPIDEMIOLOGY AND CLINICAL FEATURES: the frequency of sleep-wake disturbances (SWD) in neurological patients and the overall impact of SWD on the course of neurological disorders is discussed. Important causes of „neurogenic“ insomnia (e.g. restless legs syndrome, stroke, Creutzfeldt-Jakob disease, frontal lobe lesions, M. Alzheimer) hypersomnia (e.g. narcolepsy, stroke, Parkinsonism) and parasomnia (e.g. Parkinsonism) are presented⁷⁻¹².

DIAGNOSIS/MANAGEMENT: history taking in patients with SWD, when to refer patients to specialized sleep centers and treatment options for neurogenic SWD are presented.

SLEEP-RELATED MOVEMENT DISORDERS (SRMD)

CLAUDIO BASSETTI

The vignette of a patient with a SRMD is presented at the beginning, and its solution at the end of the lecture.

INTRODUCTION: the physiology of motor control in sleep and the variety of physiological sleep-associated motor activities are briefly discussed^{13,14}. The concept of „state dissociation“ as pathophysiological principle of (most) SMD is presented^{15,16}.

EPIDEMIOLOGY, CLINICAL ASPECTS: sleepwalking and REM sleep behavior disorder are the most important complex SRMD¹⁷⁻²¹. The list of other SRMD is shortly discussed^{13,14,22}.

DIAGNOSIS/MANAGEMENT: the diagnostic work-up and treatment options for patients with SRMD are discussed.

SLEEP-RELATED EPILEPSY

CLAUDIO BASSETTI

The vignette of a patient with a paroxysmal sleep-related episode is presented at the beginning, and its solution at the end of the lecture.

INTRODUCTION: the regulation of the thalamo-cortico-thalamic rhythms during the normal sleep-wake cycle and the role of NREM and REM sleep in epileptogenesis are briefly presented²³⁻²⁶. The concept of a „final common“ pathway of parasomnias and sleep-related epilepsies is discussed²⁷.

EPIDEMIOLOGY AND CLINICAL ASPECTS: the most important sleep-related epilepsy syndromes (including the so-called sleep hypermotor epilepsy, SHE) and sleep-epilepsy interactions are presented^{28,29}.

DIAGNOSIS/MANAGEMENT: the diagnostic work-up and treatment options for patients with sleep-related epilepsy and for those with detrimental sleep-epilepsy interactions are discussed^{30,31}.

SLEEP AND DEMENTIA

CLAUDIO BASSETTI

The vignette of a patient with cognitive decline and a sleep disturbance is presented at the beginning, and its solution at the end of the lecture.

INTRODUCTION: the suggested mechanisms of sleep-related memory consolidation^{3,32,33} and the sleep-wake changes observed during aging are presented³⁴. Experimental studies linking sleep loss with the accumulation of toxic proteins in the brain are shown^{35,36}.

EPIDEMIOLOGY AND CLINICAL ASPECTS: sleep-wake changes in the pre-symptomatic, early and advanced phases of dementia syndrome including M. Alzheimer and M. Parkinson are shown^{37,38}.

DIAGNOSIS/MANAGEMENT: the diagnostic work-up and treatment options for demented patients with sleep-wake disturbances are discussed^{39,40}.

SLEEP, SLEEP-WAKE DISTURBANCES (SWD) AND STROKE

CLAUDIO BASSETTI

The vignette of a patient with stroke and a questionable sleep disturbance is presented at the beginning, and its solution at the end of the lecture.

INTRODUCTION: the autonomic changes occurring during normal sleep and secondary to sleep disordered breathing (SDB) and other sleep disorders are presented⁴¹. Experimental studies illustrating the effects of sleep manipulations on the evolution of stroke are shown⁴²⁻⁴⁶.

EPIDEMIOLOGY AND CLINICAL ASPECTS: the data suggesting SDB (and other sleep disorders) as independent risk factors for stroke are discussed^{11,47-49}. Current knowledge on frequency and consequences of SDB and other SWD on the outcome of stroke are discussed^{11,50-52}.

DIAGNOSIS/MANAGEMENT: the diagnostic work-up and treatment options of stroke patients with SWD are discussed⁵³⁻⁵⁵.

NARCOLEPSY AND CNS HYPERSOMNOLENCE DISORDERS

CLAUDIO BASSETTI

The vignette of a patient with a CNS hypersomnolence disorders is presented at the beginning, and its solution at the end of the lecture.

INTRODUCTION: the general classification and etio-pathophysiology of excessive daytime sleepiness/hypersomnias are presented.

EPIDEMIOLOGY AND CLINICAL ASPECTS: the frequency, clinical manifestations and etio-pathophysiology of narcolepsy, idiopathic hypersomnia and other CNS hypersomnolence disorders are discussed⁵⁶⁻⁶⁰.

DIAGNOSIS/MANAGEMENT: the diagnostic work-up and treatment options for CNS hypersomnolence disorders are illustrated⁶¹.

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