INTERNATIONAL MASTER IN SLEEP MEDICINE

A postgraduate master on sleep-wake-circadian physiology, consciousness and related disorders

2023-2025

In collaboration with:
INTERNATIONAL MASTER IN SLEEP MEDICINE
A postgraduate master on sleep-wake-circadian physiology, consciousness and related disorders

The International Master in Sleep Medicine - in collaboration with the University of Bern and the Università della Svizzera Italiana as well as 13 international partner Universities - offers a unique postgraduate program, which provide advanced medical and scientific insights into sleep physiology, chronobiology and sleep medicine.

The program is under the patronage of the European Sleep Research Society (ESRS), the European Academy of Neurology (EAN), the Swiss Society for Sleep Research, Sleep Medicine and Chronobiology (SSSSC), the German Society of sleep Research and Medicine (DGSM) and the German Society of Pneumology (DGP).

For further information please visit: www.asc.unibe.ch
or contact info@asc.unibe.ch

Program Overview

BASIC KNOWLEDGE
The first part of the program provides basic tools, skills and competences to understand sleep physiology, diagnosis and treatments of sleep and consciousness disorders. The program covers a wide range of topics such as the regulation and function of sleep, sleep research methods as well as first looks at clinical topics like insomnia, hypersomnia, parasomnia and other disorders.

ADVANCED KNOWLEDGE
The second part of the program allows the students to deepen their knowledge while also offering a holistic look into further clinical topics as well as disorders of consciousness. The modules also provides in-depth theoretical and practical insights into sleep scoring in a self-study mode.

SPECIALIZATION
Building up on the previous programs, these modules of the MAS offer more specific learning contents based on the student’s personal preferences. In addition each participant will be able to gain international working experience by completing a two to four weeks internship in one of our partner labs all around the world.

Fees and Highlights

Start
May 2023
Application Deadline
April 2023
Credits
MAS | 60 ECTS
Duration
MAS | 30 months
Language
English

Who can apply
Eligible for the program are applicants with the following backgrounds:
• medical degree with or without specialization
• psychologists and neuropsychologists
• candidates with a bachelor degree in a biology and/or health related disciplines
• candidates with a Master degree in natural science or engineering
MAS Sleep Medicine 60 ECTS | 30 months

In all modules, interactive in-depth courses (such as journal club, webinar, case discussion, FAQ session etc.) are offered.

MODULE 1: Basics Sleep Medicine 4 ECTS (mandatory)
- Sleep-Wake cycle, consciousness, and their disorders: An Introduction C. Bassetti
- How is vigilance assessed? R. Khatami
- How is sleep assessed? L. Ferini-Strambi
- Circadian rhythms and their assessment C. Garbazza
- International classification of sleep disorders M. Manconi
- Strategies in sleep research A. Adamantidis
- Sleep and circadian rhythm M. Schmidt
- Sleep regulation P. Luppi
- Sleep and digitisation A. Tzovara

MODULE 2: Sleep Medicine Summer School 3 ECTS (mandatory)
Visit the official site: www.europeansleepfoundation.ch/schools-and-masters/sleep-medicine-summer-school/

MODULE 3: Interdisciplinary Approach 4 ECTS (mandatory)
- Circadian, sleep and health H. van Donge/A. Amidi
- Sleep and sport D. Etcharre
- Sleep and gender medicine M. Levy-Anderson
- Sleep and aging and lifespan H. Frohnhöfer
- Sleep and co-vit D. Bruene
- Sleep and nursery F.P. Capuccio/S. Stranges
- Sleep health C. Bassetti
- Sleep and consciousness S. Laureys

MODULE 4: Sleep Science Winter School 3 ECTS (mandatory)
Visit the official site: https://www.europeansleepfoundation.ch/schools-and-masters/sleep-science-winter-school/

MODULE 5: Basics Science 5 ECTS
- Network neurophysiology F. Frohlich
- Network physiology-pathology K. Schindler
- Network physiology of the sleep wake cycle A. Adamantidis
- Genetics of sleep and sleep disorders M. Tafti
- Circadian clocks: Mechanisms and functions S. Brown
- Sleep across the life span and species M. Schmidt
- Neurobiology of the consciousness system S. Sarasso
- Sleep, epilepsy and chronobiology M. Baud
- Animal model of narcolepsy T. Scammel
- Animal model of RBD P.H. Luppi

MODULE 6: Primary Sleep Disorders 6 ECTS
- Circadian rhythm sleep-wake disorders C. Garbazza
- Sleep-Related movement disorders A. Heidbreder
- RLS/PLMS: clinical aspects and treatment M. Manconi
- Parasomnias and state dissociations L. Nobil
- REM parasomnias and treatment P. Bargiota
- Treatment of insomnia: pharmacological and psychotherapeutic approach D. Remann

MODULE 7: Objective Sleep Measures 4 ECTS
- Imaging during sleep (fMRI, PET, NIRS) F. Maquet
- Electrical activity during sleep (EEG, HD-EEG, MEG, LFP, Unit recordings) R. Huber
- Objective measurements of sleep in the sleep laboratory F. Pizza
- Introduction of sleep scoring A. Castelhano
- Introduction of RmLogic and sleep scoring with RmLogic A. Rousac
- Practical study with remote access to RmLogic Self-study

Pediatric sleep medicine O. Bruni
Sleep apneas R. Heinzer
OSA treatment: options and complications R. Heinzer
Physiology and phenomenology of dreaming F. Sicilani
Pediatric narcolepsy G. Pazz C. Bassetti
Primary central disorders of hypersomnolence I C. Bassetti
Primary central disorders of hypersomnolence II C. Bassetti
MODULE 8: Specialization I | 5 ECTS

Latest approaches to automated sleep scoring
F. Faraci

Oscillatory analysis for comatose patient outcome prediction
M. De Lucia

Unobtrusive telemonitoring of sleep and daily activities
T. Nef

Sleep clock and society
T. Roenneberg

Sleep and electromagnetic fields
P. Achermann

A history of sleep and sleep research
H. Ahlheim

Functions of sleep and clocks
T. Roenneberg/
C. Robles/
M. Schmidt/
M. Blumberg/
C. Cirelli/
S. Aton

Sleep and brain plasticity
A. Adamantidis

Circadian clocks, timing metabolism
S. Brown (†)

MODULE 9: Specialization II | 4 ECTS (choose 3 topics)

Top 1 | Disorders of Consciousness

Coma: definition, anatomy, pathophysiology
A. Rossetti

The neurology of consciousness: lessons from neuro-imaging in coma & related states, sleep anesthesia and epilepsy
S. Laureys

Top 2 | Sleep and Pulmonology

New pathophysiological concepts, phenotyping and clinical implications in obstructive sleep apnea
W. Randerath

Definition, epidemiology, clinical presentation & outcome of obesity-related hyperventilation
W. Randerath

Top 3 | Sleep and Psychiatry

Insomnia and mental health
D. Riemann

Sleep in patients with mental disorders
T. Paunio

Top 4 | Sleep and Pediatrics

Treatment of chronic insomnia in children and adolescents with neurodevelopmental disabilities
O. Bruni

Sleep and circadian rhythmicity in ADHD
M. Lecendreux

MODULE 10: Internship Sleep Laboratory | 4 ECTS

Practical internship for 2 - 4 weeks

MODULE 11: MAS-Thesis | 15 ECTS

MODULE 12: Transferable Skills | 3 ECTS

Healthcare leadership training
International Faculty

- Antoine Adamantidis (Switzerland)
- Panagiotis Bargiotas (Cyprus)
- Claudio Bassetti (Switzerland, Chair)
- Thomas Berger (Switzerland)
- Jan Born (Germany)
- Steven Brown (Switzerland)
- Alexandre Datta (Switzerland)
- Leja Dolenc-Groselj (Slovenia)
- Francesco Fanfulla (Italy)
- Luigi Ferini-Strambi (Italy)
- Russell Foster (UK)
- Flavio Fröhlich (USA)
- Martin Hatzinger (Switzerland)
- Jan Hedner (Sweden)
- Raphaël Heinzer (Switzerland)
- Reto Huber (Switzerland)
- Alex Iranzo (Spain)
- Ulf Kallweit (Germany)
- Ramin Khatami (Switzerland)
- Lyudmila Korostovzeva (Russia)
- Gert-Jan Lammers (Netherlands)
- Steven Laureys (Belgium)
- Claudio Liguori (Italy)
- Pierre-Hervé Luppi (France)
- Mauro Mancon (Switzerland)
- Pierre Maquet (Belgium)
- Marcello Massimini (Italy)
- Dafin Muresanu (Romania)
- Christoph Nissen (Switzerland)
- Allan Pack (USA)
- Teresa Paiva (Portugal)
- Tiina Paunio (Finland)
- Dirk Pevernagie (Belgium)
- Fabio Pizza (Italy)
- Jean-Louis Pépin (France)
- Giuseppe Plazzi (Italy)
- Thomas Pollmächer (Germany)
- Mikhail Poluektov (Russia)
- Winfried Randerath (Germany)
- Dieter Riemann (Germany)
- Armelle Roussac (Switzerland)
- Kaspar Schindler (Switzerland)
- Markus Schmidt (Switzerland)
- Alessandro Silvani (Italy)
- Ambra Stefani (Italy)
- Naoko Tachibana (Japan)
- Renaud Tamisier (France)
- Athina Tzovara (Switzerland)
- Giulio Tzovara (USA)
- Sérgio Tufik (Brazil)
- Vladislav Vyazovskiy (UK)
- Frédéric Zubler (Switzerland)

Partner Universities

- Università Vita-Salute San Raffaele, Italy
- Université Grenoble Alpes, France
- University of Ljubljana, Slovenia
- University of Freiburg, Germany
- University of Tübingen, Germany
- University of Witten/Herdecke, Germany
- University Hospital of Liège, Belgium
- University of Ghent, Belgium
- Almazov National Medical Research Center, Russia
- Carol Davila University of Medicine and Pharmacy, Romania
- Iuliu Hațieganu University, Cluj-Napoca, Romania
- FUCS University, Colombia
- University of Cyprus

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