Università della Svizzera italiana

UNIVERSITÄT BERN

2023-2025

INTERNATIONAL MASTER IN SLEEP MEDICINE

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

In collaboration with:

INSELSPITAL
UNIVERSITÄTSSPITAL BERN
BERN UNIVERSITY HOSPITAL

eoc
Ente Ospedaliero Cantonale

ESF
European Sleep Foundation
Fondazione Europea Sonno

UNIVERSITÄT BERN
Interfaculty Research Cooperation: Decoding Sleep

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 previolus 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

Basic Knowledge
14 ECTS

Online modules
- Basics sleep medicine & interdisciplinary approach
- Sleep Medicine Summer School (hybrid)
- Sleep Science Winter School (hybrid)

Advanced Knowledge
15 ECTS

Online modules
- Basics sleep science
- Primary sleep disorders
- Objective sleep measures
- Sleep scoring

Specialization
31 ECTS
- Online modules
- Hands-on module
- Transferable skills
- MAS thesis

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. Erlacher*
Sleep and gender medicine	*M. Levy Anderson*
Sleep and aging and lifespan	*H. Frohnhofen*
Sleep and covid	*C. Blume*
Sleep and nursery	*F.P. Cappuccio/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. Fröhlich*
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 spieces	*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. Nobili*
REM parasomnias and treatment	*P. Bargiotas*
Treatment of insomnia: pharmacological and psychotherapeutic approach	*D. Riemann*
Pediatric sleep medicine	*O. Bruni*
Sleep apneas	*R. Heinzer*
OSA treatment: options and complications	*R. Heinzer*
Physiology and phenomenology of dreaming	*F. Siclari*
Pediatric narcolepsy	*G. Plazzi*
Primary central disorders of hypersomnolece I	*C. Bassetti*
Primary central disorders of hypersomnolece II	*C. Bassetti*

MODULE 7: Objective Sleep Measures | 4 ECTS

Imaging during sleep (fMRI, PET, NIRS)	*P. 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. Castelnovo*
Introduction of RemLogic and sleep scoring with RemLogic	*A. Roussac*
Practical study with remote access to RemLogic	*Self-study*

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*
Funtions 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)

TOPIC 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*

TOPIC 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*

TOPIC 3 | Sleep and Psychiatry	
Insomnia and mental health	*D. Riemann*
Sleep in patients with mental disorders	*T. Paunio*

TOPIC 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*

TOPIC 5 | Sleep and Neurology	
Sleep and stroke	*C. Bassetti*
Effect of sleep on CSF Amyloid-Beta	*B. Lucey*
Local sleep and Alzheimer's disease	*B. Mander*
Risk and predictors of dementia and parkinsonism in idiopathic REM sleep behaviour disorder	*A. Iranzo*
Treatment approaches for sleep disturbances in Parkinson disease	*A. Videnovic*

TOPIC 6 | Advanced Sleep Scoring	
Sleep scoring of motor events	*M. Manconi*
Sleep scoring or respiratory events	*M. Schmidt*

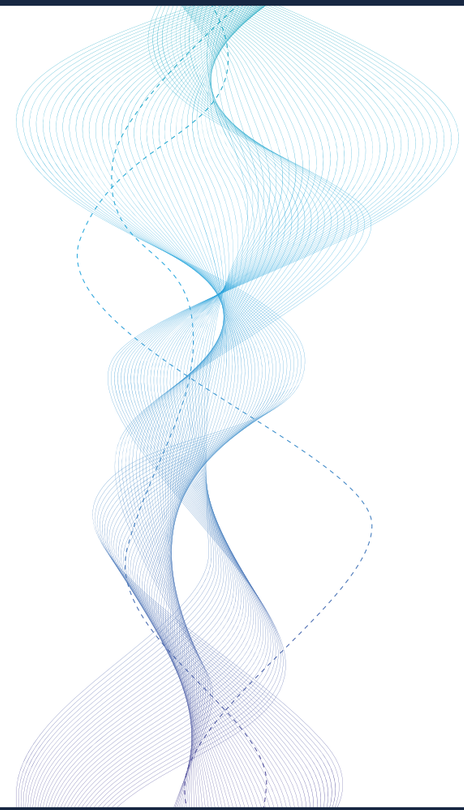
MODULE 10: Internship Sleep Laboratory | 4 ECTS

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 Manconi (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 (Austria)
- Naoko Tachibana (Japan)
- Renaud Tamisier (France)
- Athina Tzovara (Switzerland)
- Giulio Tononi (USA)
- Sergio 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 Haţieganu University, Cluj-Napoca, Romania
- FUCS University, Colombia
- University of Cyprus

For further information please contact **info@asc.unibe.ch**