

ONLINE MASTER IN SLEEP MEDICINE



**The Sleep Institute and the European
University of Madrid present**

ONLINE MASTER IN SLEEP MEDICINE

Modality

online

Duration

11 months

Language

Spanish/English depending on the students' preference,
it can be taken in either Spanish or English.

Bibliography, supporting materials, and webinars in
English

60 ECTS credits

48 | Syllabus and theory

6 | Master's Final Project

6 | Internship

Degree Title

Private title issued by the European University
of Madrid

European Certificate in Somnology

Preparation for the European Sleep Research
Society ESRS exam

With the scientific endorsement of:



Ilustre Colegio
Oficial de Médicos
de Madrid



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01

Introduction

Over the last decade, **sleep medicine** has evolved from being a field with some medical and scientific interest, into a mature discipline with solid and widely accepted scientific foundations. In addition, given the extensive prevalence of **sleep disorders** among the population, knowledge and mastery of such is of great interest for the training of doctors, nurses, psychologists, dentists, biologists, etc.

Considering the variety of pathologies that can be found within this field of study, **it is of great importance for professionals dedicated to sleep medicine to have a multidisciplinary vision.** Therefore, developing a master's degree on sleep medicine that allows a broad and practical knowledge of these disorders is a challenge that we have committed to.





From a medical point of view, there are a wide variety of disciplines involved in sleep disorders such as neurology, pneumology, neuropsychology, otorhinolaryngology, odontology, psychiatry, endocrinology, and of course family medicine and paediatrics.

Within the training programs in the different medical fields, we find that none are exclusively dedicated to sleep medicine. This being the reason why professionals who dedicate themselves to this type of pathologies require complementary training in order to learn the necessary skills and obtain the above-mentioned multidisciplinary vision; thus the interest of our master's degree.

Lastly, in some European countries as well as in the U.S, professional training exams have been available for years. Since 2012, the European Sleep Research Society (ESRS) offers a certificate titled Certificate in Somnology. This certificate is not only recognized by all countries in the European Union, but it is also recognized as one of the most prestigious sleep medicine degrees in the world. This certificate is accessible and available for people from all over the world, including an annually held exam (WWW.ESRS-EXAMINATION.EU).

The main objective of this master is to offer a solid and updated theoretical and practical knowledge on sleep medicine, enabling the student to practice this medical discipline. Moreover, this master will serve as a preparation for those students that need or wish to complete the annual exam offered by the ESRS.

Although the master's degree is primarily aimed at preparing students for the European exam, the material learned may also be useful for the preparation of other professional exams.

The master will be available in both Spanish and English, giving students the option to choose depending on their preferred language. However, all studying material used in both sessions will be in English.



02

The Master

The Sleep Institute, in collaboration with the European University of Madrid, has developed a virtual master in sleep medicine, which will also serve as a preparation tool for those students who plan to take the European ESRS (Europe Sleep Research Society) validation test. Its design allows students who wish to train and develop professionally to do so without the need to interrupt their professional career while training with us. In addition, once completed, there will be a possibility of doing an internship at any of our clinics, whether it is in Spain, Chile, or Panama, always under the direction and supervision of Dr. Diego García-Borreguero, member of the ESRS Examination Committee in Sleep Medicine.

This is a well-rounded master in sleep medicine, lasting 11 months (60 ECTS credits), which will incorporate eminent specialists from each area of this field, and will have the guarantee of the Universidad Europea de Madrid, a quality seal that will give a versatile and dynamic format as well as a complete so that the students experience is the best possible, all through its well-known virtual campus.



Among the professors, we will count with the participation of relevant international experts such as:

- J. Durán (Univ. del País Vasco, ESP)**
- C. Egea (OSI Araba Hospital universitario, ESP)**
- C. Espie (University of Oxford, GB)**
- A. Iranzo (Univ. de Barcelona, ESP)**
- G.J. Lammers (Leiden University, Netherlands)**
- L. de Lecea (Stanford University, EEUU)**
- T.L. Lee-Chiong Jr (University of Colorado Denver, EEUU)**
- JM Montserrat (Hospital Clinic Barcelona, ESP)**
- F. Provini (Univ. De Bologna, Italy)**
- D. Rosen (Harvard University, EEUU)**
- L. del Rosso (Seattle Children's Hospital, EEUU)**
- D.J. Skene (University of Surrey, GB)**
- M. Zucconi (Univ. San Raffaele, Milan, Italy)**

These professionals are all top international figures in their respective areas of expertise, several of them being co-authors of the textbook that will serve as the basis of this master program.



03

Methodology

Classes will be held online. These classes will be recorded and made available for students who wish to consult them at any time throughout the master's program. In addition, on a monthly basis, there will be webinars conducted by international experts, which will be in English. The program will follow the index and syllabus of the ESRS Sleep Medicine Textbook.



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Program

MODULE I – NORMAL SLEEP

Physiology, Clinical Evaluation, and
Complementary Tests

Diego García-Borreguero | Juan Antonio Madrid | Javier Puertas
Iván Eguzquiza | Sofia Romero | Sergio Hernández | Cristian Sánchez



1. PHYSIOLOGICAL BASIS OF SLEEP

- a. Normal sleep regulation mechanisms
- b. Chronobiology. Circadian Rhythms
- c. Biological functions of sleep
- d. Sleep and Age
- e. Sleep Disorder Prevention: Sleep Hygiene

2. ASSESSMENT OF SLEEP DISORDERS

- a. Classification of sleep disorders
- b. Clinical interview
- c. Clinical examination

3. COMPLEMENTARY TESTS

- a. Polysomnography
- b. Respiratory polygraphy
- c. Actigraphy
- d. Multiple sleep latency test
- e. Maintenance of Wakefulness Test
- f. Suggested immobilization test
- g. Other tests
- h. Scales used in sleep disorders

MODULE II – SLEEP DISORDERS

Classification, Pathophysiology, Diagnosis, and Treatment

Diego García-Borreguero | Celia García | Sara Boi | Iván Eguzquiza | Irene Cano | Joaquín Durán
Christian Bachelette | Nestor Montesdeoca | Sofía Romero | María Redondo | Carles Gaig | Sabela Novo
Alex Iranzo | Thomas Bornhardt | Verónica Martínez | Pilar Riobó | Milagros Merino

4. INSOMNIA

- a. Classification, definition, and epidemiology
- b. Pathophysiology
- c. Clinical Features and Diagnosis
- d. Comorbidities (Mental and Physical Illnesses)
- e. Non-pharmacological treatments (cognitive-behavioral therapy)
- f. Pharmacological Treatments

5. SLEEP-RELATED BREATHING DISORDERS

- a. Introduction and Classification
- b. Obstructive sleep apnea (definition, epidemiology, pathophysiology, Clinical features, diagnosis, and treatments)
- c. Roncopathy
- d. Central Apnea
- e. Hypoventilation-obesity syndrome
- f. Comorbidities and vascular risk
- g. Other respiratory disorders (e.g. related to drugs, neuromuscular pathology)
- h. Apnea in children
- i. Devices for the treatment of respiratory disorders during sleep

6. HYPERSOMNIAS OF CENTRAL ORIGIN

- a. Introduction and classification
- b. Narcolepsy (definition, epidemiology, pathophysiology, Clinical features, diagnosis, and treatments)
- c. Idiopathic hypersomnia
- d. Kleine-Levin Syndrome
- e. Hypersomnia related to other medical diseases
- f. Hypersomnia related to drugs or substances
- g. Hypersomnia and psychiatric diseases
- h. Special situations: hypersomnia and driving

7. CIRCADIAN RHYTHM DISORDERS

- a. Introduction and classification
- b. Delayed sleep-wake phase disorder
- c. Advanced sleep-wake phase disorder
- d. irregular sleep-wake rhythm disorder
- e. Free-running
- f. Jet-lag
- g. Shift work disorder
- h. Circadian rhythms and psychiatric disorders (depression, autism, and schizophrenia)
- i. Circadian rhythms in neurodegenerative disorders

8. SLEEP BEHAVIOR DISORDERS (PARASOMNIAS AND EPILEPSY)

- a. Introduction and classification
- b. Non-REM parasomnias
- c. REM parasomnias
- d. Other Parasomnias (hallucinations, enuresis, sleep eating disorders, exploding head syndrome, catathrenia)
- e. Sleep related epilepsy

9. SLEEP-RELATED MOVEMENT DISORDERS

- a. Introduction and Classification
- b. Restless leg syndrome (definition, epidemiology, pathophysiology, Clinical features, diagnosis, and treatment)
- c. Periodic leg movement disorder
- d. Bruxism
- e. Muscle cramps
- f. Propriospinal myoclonus
- g. Hypnic Myoclonus
- h. Rhythmic movement disorders
- i. Other movement disorders during sleep

10. SLEEP DISORDERS AMONG DIFFERENT POPULATION

- a. Sleep in childhood
- b. Sleep in adolescence
- c. Sleep and woman
- d. Sleep in elders
- e. Sleep and degenerative diseases
- f. Sleep and addictions

11. MISCELLANEOUS

- a. Sleep genetics
- b. Legal medicine and sleep
- c. Ontogenesis and sleep
- d. Sleep and nutrition

With the scientific endorsement of:

05 Faculty



DIRECTOR

Dr. Diego García-Borreguero

Dr. García-Borreguero specialized in Neurology and Psychiatry at the Max-Planck Institute in Munich (Germany), obtaining his Doctoral Thesis at the University of Munich in 1988. He specialized in Sleep Medicine in the USA at the National Institutes of Health in Bethesda and at Georgetown University. He directed the Sleep Unit (Neurology Service) of the Fundación Jiménez Díaz, President of the Spanish Sleep Society and Secretary of the European Sleep Research Society. He is an opinion leader in the area of movement disorders during sleep. He is currently the International Director of the Sleep Institute



COORDINATORS

Dr. Celia García Malo

Neurology Specialist

Specialist in Neurology and currently a doctoral student in Neurosciences. Expert in Sleep Medicine (CEAMS), Master in Clinical Management, Medical and Care Management (CEU). Winner of several awards including Best Scientific Communication from the Spanish Sleep Society in 2019 and Wayne Hening Young Investigator Award from the International Restless Legs Syndrome Study Group in 2019.



Dr. Irene Cano Pumarega

Pneumology Specialist

Specialist in Pneumology and Doctor of Medicine from the European University of Madrid. Expert in Sleep Medicine (CEAMS) Title, Master in Advances in Diagnosis and Treatment of Sleep Disorders (UCAM) and Master in Clinical Management of Care Units (UIMP). She has been a professor at the European University of Madrid in the Degree of Medicine, professor of Sleep Medicine for different universities masters program, and director of several courses on Sleep Disorders. Currently, she is the secretary of the Spanish Sleep Society and Coordinator of the Multidisciplinary Sleep Unit at the Hospital Universitario Ramón y Cajal.

GUEST FACULTY

Prof. Dr. Joaquín Durán

Universidad del País Vasco, Spain

Specialist in Pneumology and Doctor of Medicine from the University of Cantabria. Expert in Sleep Disorders (CEAMS) and President of the Spanish Federation of Sleep Medicine. Director of the Sleep Disorders Unit at the Eduardo Anitua Clinic. Head of the Research Department of the Bioaraba Research Institute, Vitoria. Professor of the Faculty of Medicine of the Basque Country. He stands out internationally in the field of respiratory sleep disorders.

Prof. Dr. Carlos Egea

OSI Araba Hospital Universitario, Spain

Specialist in Pneumology. Expert in Sleep Disorders (CEAMS). Head of the Functional Sleep Unit at the Hospital Universitario Alava. Director of Quality and Innovation of the Spanish Society of Pneumology and Thoracic Surgery (SEPAR). He stands out internationally in the field of sleep-disordered breathing.

Prof. Dr. Colin Espie

Oxford University, Great Britain

Professor of Sleep Medicine at Oxford University. Director of the Experimental and Clinical Sleep Medicine research program and Clinical Director of the Institute of Circadian and Sleep Neurosciences. Professor Emeritus of Clinical Psychology at the University of Glasgow. He is internationally known for his work on insomnia and its treatment, using cognitive-behavioral therapies (CBTx).

Prof. Dr. Alex Iranzo

University of Barcelona, Spain

Specialist in Neurology and Doctor of Medicine from the Autonomous University of Barcelona. He is currently President of the Spanish Sleep Society, Coordinator of the Multidisciplinary Sleep Unit and of the Neuroscience Institute of the Hospital Clinic of Barcelona. Extensive work in research on parasomnias.

Prof. Dr. Gert-Jan Lammers

Leiden University, Netherlands

Specialist in Neurology and director of the Sleep-wake SEIN center (Heemstede) associated to Leiden University Medical Centre. His main area of interest is narcolepsy and other hypersomnias. He is co-founder of the European Narcolepsy Network, being currently its president.

Prof. Dr. Luis de Lecea

Stanford University, USA

Graduate and Doctor in Molecular Biology from the University of Barcelona, he has developed an extensive research career at the Scripps Research Institute. Among his achievements is the discovery of hypocretins. He is currently Professor in the Department of Psychiatry and Behavioral Sciences at Stanford University, California (USA).

Prof. Dr. Teofilo L. Lee-Chiong Jr.

University of Colorado Denver School of Medicine, USA

Is a professor of medicine at the University of Colorado Denver School of Medicine. He has authored or edited 20 textbooks in sleep medicine and pulmonary medicine. In addition, he developed and serves as the consulting editor of Sleep Medicine Clinics, and is a member of the editorial board and reviewer of several medical journals and publications. He served as the chair of the Nosology Committee of the American Academy of Sleep Medicine (AASM), vice-chair of the Associated Professional Sleep Societies LLC (APSS) Program Committee, and chair of both the Sleep Medicine NetWork and Sleep Institute Steering Committees of the American College of Chest Medicine (ACCP). He also has served on the Council of Governors for the ACCP. He is the recipient of the 2012 American Academy of Sleep Medicine Excellence in Education Award.

Prof. Dr. Josep María Montserrat

Hospital Clinic Barcelona, Spain

Specialist in Pneumology and Doctor of Medicine from the University of Barcelona. Research fellow in New Cross Hospital in London and visiting professor at McGill University in Canada. Director of the sleep laboratory at Hospital Clinic Barcelona. Professor of Medicine at University of Barcelona. Expert in Sleep Disorders (CEAMS). Main research topics: respiratory sleep disorders, technological and telemedicine studies, animals models of sleep.

Prof. Dr. Federica Provini

University of Bologna, Italy

Doctor and professor at the University of Bologna (Italy). She has developed an extensive research career in the characterization of movement disorders during sleep and the description of the characteristics of sleep in neurodegenerative diseases, with multiple publications in this field.

Prof. Dr. Dennis Rosen

Boston's Children Hospital, USA; Harvard University, USA

Paediatric Pneumology Specialist and Sleep Medicine Specialist at Boston Children's Hospital Doctor of Medicine from the Hebrew University in Jerusalem. Professor of Paediatrics at Harvard Medical School.

Prof. Dr. Debra J. Skene

Surrey University, Great Britain

Doctor and Professor of Neuroendocrinology at the University of Surrey (UK), she is currently head of the Chronobiology Department. She has extensive experience in circadian rhythm research and chronobiology.

Prof. Dr. Lourdes del Rosso

Seattle Children's Hospital, USA

Lourdes Del Rosso is a Sleep Physician at Seattle Children's Hospital and Associate Professor in the department of Pediatrics at the University of Washington School of Medicine. She earned her medical degree at the University of Miami; completed a residency in Family Medicine at Kaiser Permanente/UC Irvine, a Sleep Medicine fellowship at Louisiana State University and a Masters in Medical Education at the University of Pennsylvania.

Prof. Dr. Marco Zucconi

San Raffaele University, Milan, Italy

Specialist in Neurology. Professor of Neurophysiology at the Vita-Salute San Raffaele University School of Neurology in Milan. Co-founder of the International Restless Legs Syndrome Study Group (IRLSSG). In the past he has held positions as President and Secretary of the European Restless Legs Syndrome Study Group (EURLSSG).

FACULTY

Prof. Dr. Cristian Bachelet

ENT Sleep Specialist

Specialist in Otorhinolaryngology. He deepened his studies in Sleep Medicine (Colombia), Sleep Respiratory Disorders (Mexico) and Maxillofacial Surgery (Colombia).

Prof. Dr. Sara Boi

Specialist in Psychiatry

Specialist in Psychiatry and Cardiovascular Surgery, currently a doctoral candidate in Medicine. Main areas of interest in psychosis and psychopharmacology.

Prof. Dr. Thomas Bornhardt

Sleep Medicine Odontologist

Specialist in Dentistry, sub-specialized in Temporomandibular Disorders and Orofacial Pain at the Universidad Andrés Bello. He completed his fellowship in Sleep Medicine at the Universidad Pontificia Católica de Chile. He is currently President of the Chilean Society of Sleep Medicine and Director of the Specialization Program in Temporomandibular Disorders and Orofacial Pain at the Universidad de la Frontera.

Prof. Iván Eguzquiza

Behavioral Medicine

Degree in Psychology from the Autonomous University of Madrid and Master's Degree in Cognitive-Behavioral Therapy from the Bertrand Russell Center. Extensive experience working as a psychologist in public and private centers, has combined the therapeutic practice and implementation of cognitive stimulation programs, with training in universities, hospitals and other entities. He is the author of numerous articles and books on non-pharmacological therapies, cognitive stimulation and coping with anxiety and stress.

Prof. Dr. Carles Gaig

Sleep Specialist Neurologist

Specialist in Neurology and Expert in Sleep Medicine (CEAMS) at the Hospital Clinic (University of Bracelona). He is currently the coordinator of the study group of wakefulness and sleep disorders of the Spanish Society of Neurology. Extensive research experience in the area of movement disorders during sleep and in parasomnias.

Prof. Sergio Hernández

Sleep Laboratory Expert

Technician in polysomnography since 2009 at the Sleep Research Institute and Quironsalud Sur Alcorcón. Expert in Sleep Laboratory Techniques (CEAMS) title. Participates in multiple research studies on insomnia and restless legs.

Prof. Dr. Juan Antonio Madrid

Doctorate in Physiology

Biology graduate and holder of the Extraordinary Award of Doctorate in Physiology from the University of Granada. Specialist in Nutrition, University of Granada, and Specialist in Chronobiology from the University Pierre et Marie Curie, Paris. He stands out for his role in Chronobiology research.

Prof. Dr. Verónica Martínez

Sleep Medicine Gynecologist

Specialist in Gynaecology and Obstetrics. Master's Degree in Human Reproduction from the Complutense University of Madrid. She has a special interest in sleep disorders affecting women.

Prof. Dr. Milagros Merino

Head of the Sleep Medicine Program at the Hospital Rúber Internacional

Specialist in Neurophysiology and Doctor of Medicine Expert in Sleep Medicine (CEAMS and ESRS). Coordinator of the Neurological Sleep Disorders Unit at La Paz University Hospital and the Sleep Program at Ruber International Hospital. Extensive experience in sleep disorders in children. Elected President of the Spanish Sleep Society.

Prof. Dr. Nestor Montesdeoca

Specialist in oral and maxillofacial Surgery

Specialist in Oral and Maxillofacial Surgery and Doctor of Medicine. Training in Head and Neck Reconstructive Surgery. Mount Sinai Medical Center, New York, USA. Fellow at the European Board of Oro-Maxillofacial Surgery (FEBOMS). Graduated in orthognathic surgery at Roth Williams Center for Functional Occlusion. He directed the Department of Oral and Maxillofacial Surgery of the University of Navarra Clinic from 2007 to 2012, being an Associate Professor of the Faculty of Medicine and Surgery of the University of Navarra during that period. He is currently Co-Director of the Department of Oral and Maxillofacial Surgery of the Hospital La Luz in Madrid and Chief of the Oral and Maxillofacial Surgery Service of the Md Anderson Cancer Center in Madrid.

Prof. Dr. Sabela Novo

Specialist in Neurology

Specialist in Neurology, doctoral candidate in Medicine. She has a special interest in movement disorders and has completed her training at Mount Sinai Movement Disorders Unit in New York. She is currently pursuing a Masters Degree in Movement Disorders.

Prof. Dr. Javier Puertas

Sleep Medicine Neurophysiologist

Specialist in Clinical Neurophysiology and Doctor of Medicine from the Cardenal Herrera-CEU University. Sleep Medicine Minifellowship, American Academy of Sleep Medicine, Mayo Clinic, Rochester, Minnesota USA He is currently Coordinator of the Neurophysiology Service and the Sleep Disorders Unit, Hospital Universitario de la Ribera, Alzira, Valencia. Associate Professor of the Department of Physiology, University of Valencia.

Prof. Dr. Maria Redondo

Sleep Medicine Odontologist

Degree in Dentistry and Doctor from the Complutense University of Madrid. Specialist in prothesis implants. Diploma in Aesthetic Dentistry. Course of Endodontics carried out in the Institute of Higher Dental Studies and with the University Certificate of Diagnosis and Treatment of Temporomandibular Disorders and Orofacial Pain, by the Complutense University of Madrid.

Prof. Dr. Pilar Riobó

Sleep Medicine Endocrinologist

Endocrinology and Nutrition specialist and Doctor of Medicine. Head of the Endocrinology and Nutrition unit of the Hospital Jiménez Díaz.

Prof. Dr. Sofía Romero

Sleep Medicine Pneumologist

Specialist in Pneumology, During her training, she extended her studies in sleep pathology in Manhattan, New York at several centers accredited by the American Sleep Academy among which are The New York University Sleep Center located at Bellevue Hospital , Sleep Medicine Associates of NYC, and Dental Sleep Apnea New York (specific training in sleep dentistry).

Prof. Dr. Cristian Sánchez

Sleep Medicine Neurophysiologist

Specialist in Neurophysiology and Doctor of Medicine from the Complutense University of Madrid. He is part of the Working Group on Movement and Behaviour Disorders during Sleep of the Spanish Sleep Society.

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Calendar

Duration

11 months

Master Dates

March 1, 2021 - January 31, 2022

Enrollment deadline

February 15th, 2021

* Any enrollment after February 15th will have an extra charge (write to pzj@iis.es for conditions)



07

Internships

The program includes a total of 48 practicum hours that will be completed online.

Those students who wish to prepare for the European Sleep Exam, a qualification offered by the European Sleep Research Society (ESRS), have the possibility of doing up to a **full year's practice** in any of the three Sleep Institute clinics associated with the program (Madrid, Santiago de Chile, Panama), for an additional cost of 300 euros/month.





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Requirements

It is recommended (but not required) to have a degree, diploma, or previous studies in the area of health sciences.

Required Documentation

- > Government issued Identity Card or Passport
- > Completed Registration Form
- > General conditions form and payments completed
- > Photograph
- > Scanned degree, title, or diploma*
- > Updated Resume/CV*

**For professor reference*

09

Price

7150€

General Conditions

- **Spot reservation and enrollment:** 715 EUROS (10% of the Masters total cost).
- **Teachings:** 6.435 EUROS.

Payment Plans

- **One-time payment:** 3% discount for the single payment of the entire master's degree program (6.241,95 euros). In order to receive the 3% discount, a deposit of the total amount must be made before December 30th, 2020 (registration and teaching)
- **Three Instalments:** Three Instalments: The teaching payment will be made in three different instalments of 50% before February 2nd, 2021 (3,217.00 euros), 25% by August 15th, 2021 (1,608.75 euros), and the remaining 25% by December 15th, 2021 (1,608.75 euros).

Students with Spanish residency are eligible to access the financing program with Deutsche Bank (Spain). **For more information please contact maria-reyes.genebat@db.com.**





Payment Methods

All payments should be done in **Euros** to the **FUNDACIÓN ESPAÑOLA DEL SUEÑO**.

BANK TRANSFER

Please send an e-mail to **pzj@iis.es** with an attached copy of the transfer.

Subject should indicate: Students name followed by "Master Enrollment".

Commissions and/or bank transfer fees are at the student's expense..

Acct. Holder: FUNDACIÓN ESPAÑOLA DEL SUEÑO

Bank: SANTANDER

IBAN: ES83 0049 5923 0823 1611 6662

SWIFT: BSCHESMMXXX

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Contact Us

If you would like to enroll in the Sleep Medicine Master or would like more information, feel free to contact us.

EMAIL: pzj@iis.es

PHONE: +34913454129

www.iis.es



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