



Professional Enrichment Course

University of Pittsburgh School of Medicine

Office of Medical Education

The Essence of Sleep

Goal:	<ol style="list-style-type: none"> 1. Understand basic physiology of sleep and circadian rhythm. 2. Become familiarized with sleep disorders in adults and children, including: <ol style="list-style-type: none"> a. Sleep related breathing disorders b. Circadian Rhythm Sleep-Wake disorders c. Insomnia d. Parasomnias e. Sleep related Movement Disorders <p>Central disorders of hypersomnolence</p>
Brief Description:	This 5-session course will give an overview of the basics in sleep and sleep medicine in adults and pediatric population. This course will include hands-on experience in the sleep lab.
Organizer:	Deepa Burman, MD deepa.burman@chp.edu Mazen El Ali, MD; Hiren Muzumdar, MD
Administrator/Coordinator contact info:	Josie Boyd Brittany Manning
Department:	Pediatrics (Pulmonology) Internal Medicine (PACCM)
Capacity (# of students):	5
Location:	Virtual Didactic Sessions UPMC Children's Hospital Sleep Lab Wexford or Main UPMC Sleep Medicine Laboratory Montefiore Hospital
Reporting location first day	Virtual Didactic Session
Maximum # of students	5
Minimum # of students	2

MS1 (Class of 2028)			
Week	Start Date (Mon)	End Date (Fri)	Available?
5	TUE 9/3/2024	9/6/2024	
12	TUE 10/22/2024	10/25/2024	
26	1/27/2025	1/31/2025	x
30	2/24/2025	2/28/2025	
59	9/16/2025	9/20/2025	
MS2 (Class of 2027)			
Week	Start Date (Mon)	End Date (Fri)	Available?
59	9/16/24	9/20/24	
70	12/2/2024	12/6/2024	x

	MON	TUE	WED	THU	FRI
AM	CHP/Virtual	Virtual	CHP	Montefiore	CHP
PM					

<p>Schedule splitting: Would it be possible for students to take SOME of the weekly schedule (e.g., just mornings or just a few half-days), or would you prefer that a student take the schedule in its entirety? [bold your choice]</p>	<p>Full required</p>
<p>If so above, please designate which parts of your schedule this would impact</p>	

Course Directors:

Deepa Burman, MD, FAASM
Mazen El Ali, MD; Co-Director
Hiren Muzumdar; Co-Director

Course Faculty:

1. Deepa Burman MD
2. Hiren Muzumdar MD
3. Mazen El Ali MD
4. Devin McGuier PHD
5. Craig Halper, Frank Boyd, Nancy Popovich RPSGT
6. William Holmes RPSGT and Evan Lucas RPSGT

Additional assistance from sleep medicine fellows (2024 –Ryan Butcher DO, Jim Han MD) and Pediatric Sleep Medicine Nurse Practitioner – Dana Yurchak.

Sessions to be completed during the Flex week:

Session I: Normal Sleep and Neurobiology

(Devin McGuier)

- Introduction to sleep and circadian neurobiology.
- An overview of normal sleep-wake cycle.
- Understand the neural structures and neurotransmitters influencing sleep.
- Understand how sleep is controlled and circadian rhythm dynamics.

Hands on experience with using Sleep Diary on self.

Reading list:

- Paruthi S, Brooks LJ, D'Ambrosio C, Hall WA, Kotagal S, Lloyd RM, Malow BA, Maski K, Nichols C, Quan SF, Rosen CL, Troester MM, Wise MS. Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. *J Clin Sleep Med* 2016;12(6):785–786.
- Watson NF, Badr MS, Belenky G, Bliwise DL, Buxton OM, Buysse D, Dinges DF, Gangwisch J, Grandner MA, Kushida C, Malhotra RK, Martin JL, Patel SR, Quan SF, Tasali E. Recommended amount of sleep for a healthy adult: a joint consensus statement of the American Academy of Sleep Medicine and Sleep Research Society. *J Clin Sleep Med* 2015;11(6):591–592.
- Banks S; Dinges DF. Behavioral and physiological consequences of sleep restriction. *J Clin Sleep Med* 2007;3(5):519-528.

Session II: Sleep Related Breathing Disorders in adults

(Mazen El Ali)

- An overview of obstructive and central sleep apneas.
- Understand the basic pathophysiology behind central and obstructive sleep apnea.
- An introduction to hypoventilation syndromes and causes
- Overview of treatment options.

Will include hands on experience shadowing Home sleep apnea test and Polysomnography set up, along with familiarizing medical student to PAP (Positive Airway Pressure) devices. Medical Student will review scoring and interpretation of sleep studies with sleep provider.

Reading list:

- Clinical Practice Guideline for Diagnostic Testing for Adult Obstructive Sleep Apnea
- Clinical Use of a Home Sleep Apnea Test: An American Academy of Sleep Medicine Position Statement
- Clinical Guidelines for the Manual Titration of Positive Airway Pressure in Patients with Obstructive Sleep Apnea

Session III: Pediatric Sleep Related Breathing Disorders

(Hiren Muzumdar)

- Understand normal breathing in children compared to adults
- Understand the basics of how to approach a pediatric patient with sleep disturbances.
- Get familiarized with the common causes of pediatric sleep disordered breathing.
- Learn about central sleep apnea of infancy and pre-maturity.
- Overview of treatment options.

Will include hands on experience with observing pediatric patient set up and exposure to different PAP devices. Medical Student will review scoring and interpretation of sleep studies with sleep provider.

Session IV: Parasomnias and other sleep disorders in children

(Deepa Burman)

- Get familiarized with REM and NREM parasomnias
- Introduction to: sleep talking, sleep walking, enuresis, night terrors, etc.
- Recognize Restless Legs Syndrome and PLMD.
- An overview on circadian rhythm disorders
- Introduction to hypersomnia disorders: narcolepsy, IH, insufficient sleep

Will include hands on experience with actigraphy on self

Session V: Insomnia; Sleep Health and Wellness; Interesting Cases in Sleep Medicine

An introduction to insomnia

- Review interesting cases with videos
- Complete the American Academy of Sleep Medicine Sleep Health and Wellness Program

Reading list:

Testimonial: What it's like to be in Sleep Medicine: Shadowing Dr. Chervin

Testimonial: A Day in the Life of Dr. Skiba

Course Evaluation

Pretest on Sleep and Circadian Science and Sleep Disorders

Post test on Sleep and Circadian Science and Sleep Disorders

Evaluation of Course by Medical Students

Virtual opportunities:

Opportunity to participate in

Case conference and Didactic lectures every Monday 8 am to 10 am

Sleep and Circadian Science Grand rounds every Thursday 4 pm

FREE MEMBERSHIP

To support the growth of the sleep medicine physician pipeline and develop tomorrow's leaders, the American Academy of Sleep Medicine (AASM) now offers free membership for students and residents. Membership will help students leverage the strength of the AASM community to learn from mentors, make connections, and sharpen their skills.

Qualifications

Qualified students and residents include anyone in formal training, such as medical school, residency, a post-doctoral program, a master's degree program, a non-sleep medicine fellowship program, a PhD program, or similar program as approved by the Board of Directors. To complete their application, students will need to provide a letter of verification from a program director/registrar verifying their student status.

<https://aasm.org/professional-development/choose-sleep/free-student-resident-membership/>