

Sleep and Mood Disorders Laboratory

As an internationally-recognized center for research on melatonin, circadian rhythms, and disorders related to the body clock, we aim to expand the understanding of human circadian rhythms and to develop and refine treatments for body clock disorders.

The Sleep and Mood Disorders Laboratory focuses on studies of circadian rhythms ("body clocks") and how they are affected by melatonin and light. The Laboratory continues to refine the understanding of how circadian rhythms govern the sleep-wake cycle.

**For More Information or to
Enroll in This Study, Please
Contact:**

Sleep & Mood Disorders Laboratory

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Oregon Health & Science University includes the schools of dentistry, medicine, and nursing; University Hospital and Doernbecher Children's Hospital; dozens of primary care and specialty clinics; multiple research institutes; and several outreach and public service units.

OHSU is an equal opportunity, affirmative action institution.

APPROVED: **Mar. 7, 2011**



Circadian

Studies in Young

Blind

Children and

Adolescents

Purpose

Many totally blind children and adults have trouble sleeping. We know that this is often due to a lack of light stimulation to the body's internal clock, located in a part of the brain called the hypothalamus. The body clocks of sighted people are re-set daily by the perpetual rising and setting of the sun. Natural sunlight is important for keeping the internal rhythms of most sighted people on a 24-hour schedule. However, this is not always possible for those who are unable to see light through their eyes. These children and young adults tend to have natural body rhythms that free-run, meaning that their body rhythms drift, usually later, each day, causing sleep and activity difficulties.

The purpose of this study is to learn more about body rhythms in blind children and young adults that keep them from falling asleep at the desired time or cause them difficulty staying alert during typical waking hours. We will conduct state-of-the-art, individualized body clock assessments for each participant through the use of a highly-sensitive, wrist-worn sleep and activity monitor and through occasional saliva sampling. If a participant is found to have a body rhythm that is out-of-sync with the 24 hour day, he or she may have the option of taking a low-dose of melatonin daily. We hope to confirm that melatonin can be used to adjust irregular body rhythms in children, as it does in adults.

Is my child eligible?

We are currently looking for subjects who are:

- Between the ages of 5-20, **with or without** sleep difficulties
- Blind with **no light perception**

What will my family need to do to participate?

- Phone screening
- Complete questionnaire packet about general health and sleep history
 - If the child/young adult qualifies:
 - Wear an Actiwatch® wrist device to monitor periods of rest and activity
 - Keep a sleep diary
 - At home, conduct occasional saliva collections:
 - Use a cotton saliva collection device called a Salivette®
 - Saliva sampling takes place as necessary through the study
 - If your child has an out-of-sync body rhythm, he/she may be invited to take a daily low-dose of melatonin to see if it re-sets their body clock for a better night's sleep!
- **Your child will also be compensated for their time, on average between \$115-\$190/month!**

All materials will be paid for by the investigators.

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Why is this study important?

By studying blind children and young adults' body clocks, we hope to better understand circadian rhythms and to develop the best treatments for circadian sleep disorders that will improve functioning during the day and maintain a consistent and regular sleep pattern.

Who is Conducting this Study?

Principal Investigator:
Alfred Lewy, MD, PhD

Co-Investigator:
Jonathan S. Emens, MD, DABSM

Research Assistants:

Amber Laurie
Andrea Thompson
Sarah Alejandrino
Liska Havel
Robin Brown
OHSU IRB Study #4664

Sponsor

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