#### Welcome! Thank you for participating in the Circadia research study!

We are a clinical research study located at-Massachusetts General Hospital dedicated to better understanding the genetic influences of atypical circadian rhythms. Our study is self-directed and completely home-based, making study participation far reaching, flexible, and focused on your schedule.

The Circadia research team, led by Dr. Jacqueline Lane, is interested in better understanding the genetics of circadian rhythms, especially atypical circadian rhythms. Circadian rhythms are an integral part of our functioning, regulating and syncing our human behavior and physiology with the external environment and the 24-hour day. While research has been able to identify core components of our molecular circadian clock, much is still unknown about the genetics and physiological mechanisms driving our circadian rhythms.

Working together, we believe that we will be able to make the genetic pathways related to circadian rhythms clearer, identify the genetic components directly influencing atypical circadian rhythms, and through this be able to better help inform the diagnosis, treatment, and therapies for all who are living with an atypical circadian rhythm.

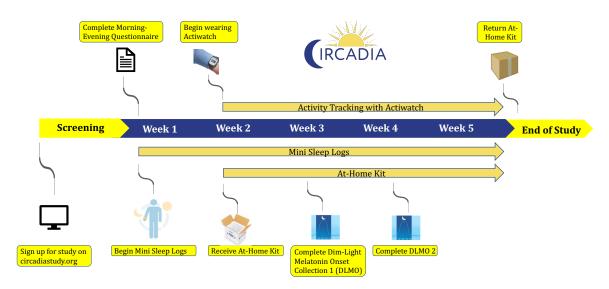
Best Regards,

Jacqueline Lane, PhD

Principal Investigator of the Circadia Study Circadiastudy@MGH.HARVARD.EDU

## **Overview of the Circadia Study**

# <u>Circadia Study</u> <u>Timeline</u>



The Circadia study is a 4-6 week study.

During the study you will complete:

- One Morning-Evening Questionnaire
- A Mini Sleep Log each day for 4 weeks
- Two Dim-Light Melatonin Onset Collections (DLMOs)

See the study portal CircadiaStudy.org to complete the questionnaire and sleep logs.

### Collection Goals for the Circadia At-Home Study Kit

This kit was created with you in mind, to help you easily and successfully provide your study collections. These include the following: activity and behavior monitoring and a measure of your melatonin levels provided through saliva samples collected hourly in dim light conditions. Below we explain the study Collection Goals:

#### **Goal 1) Complete Study Monitoring and Logging**

An important aspect of the Circadia study is better understanding the attributes of your daily activity, light exposure, and sleep and wake time. We will measure your activity and light exposure through a watch-like wearable called an **Actiwatch**. We will assess your sleep behavior and mood using surveys and applications.

#### Goal 2) Provide hourly melatonin saliva samples in a dim light environment

Melatonin is a hormone that helps regulate our sleep-wake cycle. You will schedule the two dates for the melatonin sample collections, set one week apart from one another, based on your schedule. We have provided scheduling, preparation, and collection instructions on **pages 8-14**. To achieve this goal, you will use the following:



Bottle with time stamp lid and cotton collection swabs



Temperature monitor

Misc. Items: UVEX Blue light-blocking glasses, toothbrush, tape, icepack, insulated pouch.



Night lights and light meter



**Collection Tubes** 

## Mini Sleep Log

Complete the Mini Sleep Log each day on the Patient Portal at circadiastudy.org

# **Daily Study Checklist**

The following checklist is for daily use for the duration of the Circadia Study. Use the calendar to keep track of completed days.

☐ Complete Mini Sleep Log



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	□ Sleep Log						
Week 2	□ Sleep Log						
Week 3	□ Sleep Log						
Week 4	□ Sleep Log						
Week 5	□ Sleep Log						
Week 6	□ Sleep Log						

