APPLICATION DEADLINE 20 February 2023!

Sleep and Chronobiology Summer Behavioral Sciences Research Apprenticeship

The E.P. Bradley Hospital, Brown University affiliated Sleep Research Laboratory in Providence, RI supported by the COBRE Center (https://bradleycobre.org/) for Sleep and Circadian Rhythms in Child and Adolescent Health, announces a research internship available for the summer of 2023.

COMMITMENT: Full-time beginning 29 May 2023 through 22 August 2023

- **Summer 2023 Training:** Night and weekend training hours occur. Training includes instruction in background information on sleep and circadian science and research methods, ethics of human research, laboratory skills training, behavioral testing, and scientific communication skills.

- **Scientific Conference:** SLEEP 2023, the 37th Annual Conference of the Associated Professional Sleep Societies (APSS): June 3-7 in Indianapolis, IN. Interns are expected to join the Sleep Research Society (cost = $85 as trainee members) as soon as possible after accepting admission to the internship program. Attendance at the scientific meeting in Indianapolis, IN is part of the internship experience; registration and transportation for the conference are provided.

- **Research Projects in the Lab:** Trainees will be engaged in laboratory research projects. They will work primarily on projects in the sleep lab and with ambulatory set ups in families’ homes, as well as opportunities in COBRE lab projects, which can be found on the website (https://bradleycobre.org/). The challenging nature of human sleep and biological rhythms research requires interns to devote the summer entirely to this academic research experience and not have other jobs or course work.

- **Academic Exercise:** Each trainee completes library research on sleep/circadian related topics of their choosing with mentorship from faculty and fellows. Interns provide an overview of this research at the end-of-summer colloquium (August 20-22). The program’s commitment extends through this retreat/colloquium.

- **Retreat/Colloquium:** Scientists early in their research careers attend the retreat/colloquium to describe their career paths and their scientific research. The retreat/colloquium also includes presentations by research project leaders supported by the COBRE Center and by summer interns.
APPLICATION

Complete the application form and submit it by February 20, 2023. Have 2 letters of recommendation (preferably from professors) sent, e-mailed, or faxed directly to Dr. Carskadon and Cristal Medeiros (see addresses on the application form) by the same deadline. A member of the admissions committee will interview the short list of candidates via Zoom or in person.

ELIGIBILITY

Undergraduate students with strong interest in behavioral sciences research and who demonstrate enthusiasm for, commitment to, and availability for the full program are encouraged to apply. We also encourage seniors or recent graduates to apply with potential for full-time Research Assistant positions in RI COBRE center projects after the summer.

Previous courses or lab work in sleep or circadian rhythms are helpful but not required. During the internship, interns will be required to reside in or very near Providence. US citizenship or appropriate visa status is required. Members of underrepresented minorities and individuals from disadvantaged backgrounds are encouraged to apply.

What Research Interns Learn: Formal Training Program

- Introduction to normal human sleep and circadian rhythms and research methods
- Central nervous system and neurophysiological basis of electroencephalography (EEG) and EEG spectral analysis
- Polysomnographic (PSG) recording techniques, including EEG, EMG, EOG, EKG, respiratory plethysmography, oxygen saturation, etc.
- Operation of laboratory and ambulatory PSG monitoring equipment
- Activity monitoring with wearables: operation and analysis
- Performance testing and identification of sleep stages
- Basic lab procedures, including working with human adolescent participants
- Ethical conduct of research
- Experimental hypotheses, rationale, and methods for laboratory’s and COBRE center summer research projects
- Presentation skills, including effective creation and performance of PowerPoint slide presentations and/or poster presentations for the retreat/colloquium
- Attendance at the Sleep Lab’s retreat/colloquium, which includes research presentations from sleep scientists detailing their career paths and current scientific research, and from other summer interns.

This work was supported by the COBRE Center for Sleep and Circadian Rhythms in Child and Adolescent Mental Health funded by the National Institute of General Medical Sciences of the NIH under grant number P20GM13974. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.
• Skills in preparing for attending a scientific conference
• Successful applicants are also required to complete appropriate Human Subjects Protection/HIPAA training through the CITI program, as well as complete E.P. Bradley Hospital orientation training (including a background check and a drug screen)

What Research Interns Do

Our lab is involved with several projects that research interns may work on throughout the summer. The primary research projects in the summer of 2023 include: (1) disparities in sleep in the context of children with asthma (ambulatory sleep recordings in the home and circadian phase assessment); (2) sleep, circadian rhythms, sleep-dependent learning, and structural imaging in children; and (3) sleep loss and ADHD in children. These projects can include assessments that may necessitate intern involvement around the clock (i.e., at night).

Research interns carry out multiple facets of data collection (electrode application, work one-on-one with research participants with forms/tests administration), data reduction, data entry, and error checking.

During the in-lab research phases of the program, interns are assigned to teams and work 5 or 6 days each week—not always Monday through Friday, often Saturday and Sunday—in research protocols that often involve working unusual schedules. Applicants must be able and willing to work on various types of schedules for all or part of the program: [Sleep planning assistance (e.g., earplugs, eye masks, and light boxes) is provided to help you adapt to work schedules; sample schedules are available on request.] When possible, we attempt to assign interns to hours that correspond to their circadian phase preferences, as well as make an effort to keep schedules somewhat consistent.

Stipend and Other Benefits

• $4,200* for the summer, housing not included (Assistance in locating housing in Providence is provided).
• Paid registration, travel, and lodging for the annual scientific conference (Indianapolis, IN) Sleep 2023. You are responsible to pay SRS membership dues ($85).
• Students admitted to the internship through this application process may be eligible to enroll in CLPS1194 through the Brown University Office of Summer and Continuing Education. Tuition and fees are NOT covered by the Sleep Lab. You will not receive a Brown transcript credit for the experience unless you opt to enroll in this course and pay the university fees.

*Stipends are subject to taxes and fees; they are not tax deductible; SSI fees are charged. Payments occur every 2 weeks across the summer, starting 2-3 weeks after the program begins. Interns become employees of E.P. Bradley Hospital, through which payments are made.

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Personal Information

Legal Name________________________________________ Date of Birth__________________________

Preferred Name_________________________ Age__________________________

Gender________________________________________ Pronouns__________________________

Current Mailing Address__________________________________________________________

Permanent Address__________________________________________________________

Cell Phone____________________________________________

Academic Email________________________________________ Other Email__________________________

Emergency Contact (EC) Name________________________________________ Relationship to EC__________________________

EC Phone(s)________________________________________ EC Email________________________________________

US Citizen? ☐ Yes ☐ No    Country of Citizenship__________________________

If non-U.S. Citizen, do you possess a Visa that permits you to work through August, 2023? ☐ Yes ☐ No

Educational Information

Semester Standing: ☐ Fr ☐ So ☐ Jr ☐ Sr ☐ Post Grad

Current (or Former) Institution________________________________________ City, State__________________________

Major________________________________________ Minor________________________________________

Overall GPA_____________ PLME Eligible (Brown students)__________________________

If graduated, graduate school or other plans? ____________________________________________

______________________________________________________________________________

______________________________________________________________________________

For graduates or graduating applicants: Are you intending to gain research experience with a full-
time job at the end of this program?

☐ Yes ☐ No
Required Application Materials (Please Attach Separately)

[IMPORTANT: Include your name on top of the page and in the file names of all attachments]

(1) Brief Personal Statement (about 1 page)

Please discuss your specific reasons for seeking this Summer Behavioral Sciences Research experience. Include 1) past research experiences, 2) past experience that demonstrates your ability to be flexible in your behavior in order to respond to a challenge (such as working unusual hours), 3) past experience working with children or adolescents, 4) your educational and career plans and why this internship is a priority for your academic/career/life goals.

(2) Honors/Awards

Please list honors/awards you have received since graduating from high school. Include scholarships, assistantships, professional society memberships, and publications.

(3) Employment, special training, and volunteer experiences,

Please list start and end dates, role, and name of the company or institution.

NOTE: If available, it is preferable to send your resume instead.

(4) Academic Performance

List by institution and year, your undergraduate and graduate courses with grades. For current courses, leave the grade blank. Explain grading system if other than 1-100 or A, B, C, D, F. Show level required for passing.

NOTE: If available, it is preferable to send your university transcript (does not need to be “official”) instead.

Are you able to work in the lab part time in the 2023-2024 academic year?

Yes: ☐ Sem I ☐ Sem II ☐ No

If yes, please describe availability:
Please list below the names, degrees, and affiliations of two people (usually professors) who you will request to submit recommendation letters for you. [Letters should be sent, faxed, or e-mailed directly to Dr. Carskadon and cc Cristal Medeiros at the address below.]

<table>
<thead>
<tr>
<th>Name and degree(s)</th>
<th>Position/rank</th>
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Completed application forms and letters of recommendation must be received by February 20, 2023.

If you have questions, contact:
- Professor Mary Carskadon, Sleep Research Laboratory Director
  - Phone: (401) 421-9440
  - E-mail: mary_carskadon@brown.edu
- Cristal Medeiros, Research Administrative Coordinator
  - E-mail: cmedeiros13@lifespan.org.

For questions specific to the Summer Intern experience, you may reach out to prior Summer Interns:
- Catherine Butler, Research Assistant, Summer Intern 2021
  - Email: cbutler4@lifespan.org
- Rebecca Rosenzweig, Research Tech, Summer Intern 2021
  - Email: rebecca_rosenzweig@brown.edu
- Jared Chung, Research Tech, Summer Intern 2022
  - Email: jared_chung@brown.edu
- Andrey Arshava, Research Tech, Summer Intern 2022
  - Email: andrey_arshava@brown.edu

Send completed materials to the following address:

Cristal Medeiros, (cc Mary A. Carskadon, Ph.D., Director), Sleep Research Laboratory

E.P. Bradley Hospital, 300 Duncan Drive, Providence, RI 02906, USA
Fax: 401-453-3578
Email: cmedeiros13@lifespan.org (cc: mary_carskadon@brown.edu)

Please sign the applicant statement on the next page

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APPLICANT STATEMENT

I certify that if I accept the internship offer, I will be able to participate for the full duration of the Summer Sleep and Chronobiology Behavioral Research Internship from 29 May through 22 August 2023.

I further certify that the information provided on this application and supplementary documents is true and complete. I understand that misrepresentation or withholding information may result in the rejection of consideration for this program or termination at any time during the program.

I hereby agree to waive my right to view letters of recommendation and release the educational institutions and related individuals from all liability in responding to inquiries regarding my application. I release the E.P. Bradley Hospital Sleep and Chronobiology Laboratory, the Department of Psychiatry and Human Behavior of the Alpert Medical School of Brown University, and the Brown University Department of Cognitive and Linguistic Sciences, and Office of Summer Studies, and all other program-affiliated institutions from any liability related to such inquiries.

I agree to abide by all program requirements, policies, and practices.

Signature __________________________________________ Date __________________________

Printed Name ______________________________________
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Inclusion of Underrepresented Individuals
Confidential Information to Report to Funding Agency, NOT for admissions.

Goal: To increase applications from those whose backgrounds are underrepresented in biomedical research, including individuals from disadvantaged backgrounds, individuals diagnosed with a disability, and individuals from underrepresented racial and ethnic groups.

Your participation in completing this portion of the application, while optional, will ensure we continue enhancing the diversity of the biomedical research workforce. This form is separated from the application prior to processing and has no bearing on final internship selection.

Please select one:

Were or currently are homeless, as defined by the McKinney-Vento Homeless Assistance Act ☐ Yes ☐ No
Were or currently are in the foster care system, as defined by the Administration for Children and Families ☐ Yes ☐ No
Were eligible for the Federal Free and Reduced Lunch Program for 2+ years ☐ Yes ☐ No
Have/had no parents or legal guardians who completed a bachelor’s degree (see the U.S. Department of Education) ☐ Yes ☐ No
Were or currently are eligible for Federal Pell grants ☐ Yes ☐ No
Received support from the Special Supplemental Nutrition Program for Women, Infants and Children as a parent or child ☐ Yes ☐ No
Grew up in a federally-designated U.S. rural area (see Health Resources and Services Administration Rural Health Grants Eligibility Analyzer) OR low-income/health professional shortage (qualifying zip codes here: Centers for Medicare and Medicaid Services-designated Low-Income and Health Professional Shortage Areas) ☐ Yes ☐ No

How would you best describe yourself? Select all that apply.

_____ American Indian/Alaska Native
_____ Native Hawaiian/Other Pacific Islander
_____ White
_____ Other/Unknown
_____ Asian
_____ Black or African American
_____ More than one race
_____ Prefer Not to Answer