



**APPLICATION DEADLINE 19 February 2024!**

## Sleep and Chronobiology Summer Behavioral Sciences Research Apprenticeship

The E.P. Bradley Hospital Brown University affiliated Sleep Research Laboratory in Providence, RI, announces research apprenticeships available for the summer of 2024.

**COMMITMENT: Full-time beginning 27 May 2024 through 20 August 2024**

- Summer 2024 Training: Night and weekend training hours occur. Training includes instruction in background information on sleep and circadian science, ethics of human research, sleep laboratory skills, behavioral testing, and presentation skills. In addition, the background and rationale for summer studies are reviewed.
- Scientific Conference: SLEEP 2024, the 38<sup>th</sup> Annual Conference of the Associated Professional Sleep Societies (APSS): June 1-5, 2024. Students are expected to join the Sleep Research Society (cost = \$10 as trainee member) as soon as possible after accepting admission to the program. Attendance at the APSS scientific meeting is part of the apprenticeship, which supports registration, transportation, and lodging for the conference.
- Research Projects in the Lab: Students engage in *FULL*-time involvement with various laboratory research projects. The challenging nature of human sleep and biological rhythms research requires apprentices 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 a sleep/circadian related topic of their choosing with mentorship from faculty and fellows. Apprentices provide an overview of this research with a poster and a brief oral presentation at the end-of-summer colloquium (August 18-20). Your commitment to the program extends through this retreat/colloquium.

## APPLICATION

Download and complete this application form and submit it by February 19, 2024. Have 2 letters of recommendation (preferably from professors) e-mailed 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, depending on availability.

## 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. Previous courses or lab work in sleep or circadian rhythms are helpful but not required. Local trainees (e.g., Brown, URI, PC students) are offered the opportunity to participate in sleep lab activities beyond the summer by working on the lab's sleep studies during the school year. Apprentices must reside in or very near Providence for the summer. Recent university graduates or graduate students are also encouraged to apply. US citizenship or appropriate visa status is

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required. Members of underrepresented minorities and individuals from disadvantaged backgrounds are encouraged to apply.

### What Research Apprentices 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 electrode hookup
- Laboratory and ambulatory PSG monitoring equipment
- Activity monitoring with wearables: operation and analysis
- Performance testing and identification of sleep stages
- Working with people from various communities, including healthy children with asthma and adults treated for opioid use disorder
- Basic lab procedures, including working with human participants
- CPR Training
- Ethical conduct of research
- Experimental hypotheses, rationale, and methods for laboratory's summer research projects
- Presentation skills, including effective creation and performance of PowerPoint slide presentations or poster presentations for the retreat/colloquium
- Attendance and participation at the Sleep Lab's retreat/colloquium
- Skills in preparing for attending a scientific meeting
- Successful applicants are also required to complete appropriate Human Subjects Protection/HIPAA training through the CITI program as well as the EP Bradley Hospital orientation training (including a background check, drug screen, and Net Learning)

### What Research Apprentices Do

Our lab is involved with several projects that research apprentices may work on throughout the summer. As noted above, the primary research projects in the summer of 2024 include: including (1) **DASH**, a study on sleep-health disparities in urban children with asthma; (2) **Sleep & Learn**, a project examining impact of sleep restriction on learning and brain function in children; (3) **ARTS**, a project looking at sleep and circadian rhythms in children with a family history of Alzheimer's Disease; (4) **CPS**, a project to validate new wearable technology; (5) **PROUD**, a project that focuses on how sleep and circadian rhythms affect people who are receiving medical treatment for Opioid Use Disorder. Several of these projects include assessments that necessitate apprentice involvement around the clock (i.e., day **AND** night).

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

During the in-lab research phases of the program, apprentices are assigned to teams and work 4 to 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 apprentices to hours that correspond to their circadian phase preferences, as well as make an effort to keep schedules somewhat consistent.

### Stipend and Other Benefits

- \$4,233\* for the summer, housing not included (assistance in locating housing in Providence may be provided).
- Paid registration, travel, and lodging for the annual scientific conference (Houston, TX) Sleep 2024. You are responsible to pay SRS membership dues (\$10).
- Students who are admitted to the apprenticeship through this application process may be eligible to enroll in CLPS1194 through the Brown University Summer Session. Tuition and fees are NOT covered by the Sleep Lab; receiving both the stipend and payment for tuition are not permitted by the University. 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. Apprentices become employees of E.P. Bradley Hospital, through which payments are made.



**APPLICATION DEADLINE 19 FEBRUARY 2024!**

**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

**Educational Information**

Semester Standing: \_\_\_\_\_ Fr \_\_\_\_\_ So \_\_\_\_\_ Jr \_\_\_\_\_ Sr \_\_\_\_\_ Grad

Current Institution \_\_\_\_\_ State \_\_\_\_\_

Major \_\_\_\_\_ Minor \_\_\_\_\_

Overall GPA \_\_\_\_\_ PLME Eligible (Brown students) \_\_\_\_\_

If graduated, graduate school or other plans? \_\_\_\_\_

\_\_\_\_\_



### Personal Statements

**On a separate sheet of paper**, please write a brief personal statement (about 1 page) in which you discuss your *specific* reasons for seeking *this* Summer Behavioral Sciences Research experience. Include 1) past research experience, 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 your notion of why this fellowship is a priority for your academic/career/life goals. [Put your name at the top of the page and in the file name.]

**List below** – honors/awards you have received since graduating from high school. Include scholarships, assistantships, professional society memberships, and publications.

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**List below employment, special training, and volunteer experiences**, including start and end dates, role, and name of the company or institution. *If available, it is preferable to send your resume instead.*

Are you able to work in the lab in the 2024-2025 academic year? Yes:  Sem I  Sem II  No

If yes, please describe availability: \_\_\_\_\_

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### Academic Performance

**List below** by institution and year, your undergraduate and graduate courses with grades or submit a transcript. 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. *If available, it is preferable to send your university transcript (does not need to be “official”) instead.*

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**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.]

Name and degree(s)	Position/rank	Institution
1. _____		
2. _____		

Completed application forms and letters of recommendation  
must be received by **February 19, 2024.**

**If you have questions**, contact: Professor Carskadon, Sleep Research Laboratory, phone: (401) 421-9440. e-mail: [mary\\_carskadon@brown.edu](mailto:mary_carskadon@brown.edu) or Research Administrative Coordinator, Cristal Medeiros, e-mail: [cmedeiros13@Lifespan.org](mailto:cmedeiros13@Lifespan.org). For questions specific to the Summer Apprentice experience, you may reach out to prior Dement Fellows: Sophia Nicogossian ([sophia\\_patti@brown.edu](mailto:sophia_patti@brown.edu)), Zach Love ([zachary\\_love@brown.edu](mailto:zachary_love@brown.edu)), or Mehak Malhotra ([mehak\\_malhotra@brown.edu](mailto:mehak_malhotra@brown.edu)).

**Send** completed materials to the following address: Cristal Medeiros, Sleep Research Laboratory, E.P. Bradley Hospital, 300 Duncan Drive, Providence, RI 02906, USA; or Fax: 401-453-3578; or e-mail: [cmedeiros13@lifespan.org](mailto:cmedeiros13@lifespan.org) (cc: [mary\\_carskadon@brown.edu](mailto:mary_carskadon@brown.edu))

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## APPLICANT STATEMENT

I certify that if I accept the apprenticeship offer, I will be able to participate for the full duration of the Summer Sleep and Chronobiology Behavioral Research Apprenticeship from 27 May 2024 through 20 August 2024.

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 students 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 fellowship selection.

Please select one:

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

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

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| <input type="checkbox"/> American Indian/Alaska Native<br><input type="checkbox"/> Native Hawaiian/Other Pacific Islander<br><input type="checkbox"/> White<br><input type="checkbox"/> Other/Unknown | <input type="checkbox"/> Asian<br><input type="checkbox"/> Black or African American<br><input type="checkbox"/> More than one race<br><input type="checkbox"/> Prefer Not to Answer |
|---|--|

