



Organization Name:

UAHS Center for Sleep and Circadian Sciences

Organization Background:

“Sleep and circadian sciences are biological functions that constitute a core determinant of all domains of health, across the life span” Our center focuses on research in this domain.

<https://sleep.uahs.arizona.edu/>

Internship Project Title

There are two project opportunities:

1. *Alternative Treatments for Obstructive Sleep Apnea*
2. *Arrhythmic potential for Patients for Obstructive Sleep Apnea*

Project Description:

OSA affects 29.4 million in the US and costs approximately \$150 billion annually. OSA is characterized by repetitive upper airway collapse during sleep. OSA has an impact on adult mortality and, if left untreated can result in hypertension, cardiac disease, stroke, type 2 diabetes, motor vehicle accidents, arrhythmias and death. Patients with OSA have a 2-3-fold increased risk of all-cause mortality, independent of other risk factors such as obesity and cardiovascular disease.³ It is therefore a public health concern.

The first project is focused on evaluating the long term efficacy of using oral appliances (OA) to treat OSA. The student would be involved in reviewing charts of patients before and after getting an OA to treat OSA and looking for changes in clinically relevant parameters such as variables on sleep studies. The student would be trained on reviewing sleep studies, their variables and data entry. Once trained, the student will function independently with assistance as needed from the PI.

The second project is also a retrospective review of existing raw data signals from sleep studies to identify propensity for arrhythmias in patients with OSA based on electrocardiogram findings. The student will learn how to look at sleep studies, download raw data files and perform electrocardiogram analysis based on stage of sleep and treatments being administered. Once trained, the mentee will function independently with assistance as needed from the PI to perform downloads and analyses which are relevant to the fields of sleep and cardiovascular medicine.

Internship project keywords (check all that apply).

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| ☐ Health Disparities | ☐ Physical Activity |
| ☐ Public Health Preparedness | ☐ Substance Abuse |
| ☐ Collaborations with Community | ☐ Mental Health |
| ☒ Collaborations with University | ☐ Access to care |
| ☒ Community health service | ☐ Nutrition |

- ☐ Reproductive/Sexual Health
- ☐ Environmental Health
- ☐ Maternal/Infant Health
- ☐ Tobacco Use
- ☐ Injury/Violence Prevention
- ☐ Immunization
- ☐ Infectious Disease

- ☒ Oral Health
- ☐ Evaluation
- ☐ Policy Development
- ☐ Program Planning
- ☒ Data Analysis
- ☒ Other Sleep Health

When: When do you want the work done? Check all that apply.

☒ Fall Semester

☒ Spring Semester

☒ Summer Term

☒ I want this listing to remain active indefinitely and we will accept applications from students for any upcoming semester.

☐ This listing is only for a specific semester/term: _____

Where:

Organization Mailing Address: salmapatel@arizona.edu

Address where Student will work (if different from above): *Click or tap here to enter text.*

☒ Check here if the student may have the option to work remotely from a site not listed above for all or part of this project.

Student Characteristics:

Attention to detail

Interest in physiology

Organizing talent

Level of Expertise Needed: Both-- MPH program intern and an undergraduate public health program intern.

Undergraduate: The internship for undergraduates should provide an experience that allows students to incorporate classroom learning into public health practice.

Graduate: Applied experiences for graduate students should require application of advanced knowledge and skills to the solution of health problems and the production of at least two agency-based deliverables.

Both experiences prepare students for future employment.

☒ MPH

☒ Undergraduate

☒ Either

Supervision

Salma Patel, MD, MPH

Board certified in internal medicine and sleep medicine

Compensation/Benefits/Professional Development

Unfunded position.

There are opportunities for internal professional development such as local conferences and grand rounds.

Students may be included in publications depending on the amount of effort and interest in this.

Application Contact Information

Interns should send an email expressing their interest in this position along with a CV or resume to the following three core study staff included in the same email:

Dr. Salma Patel salmapatel@arizona.edu