Research Scientist- Respiratory Physiology

The University of Wisconsin – Madison is seeking a highly productive and motivated scientist, preferably with previous experience in respiratory and/or sleep physiology in rodents, and a track record of scientific achievement as evidenced by primary authorship of peer-reviewed publications.

The incumbent will perform translational research in the James B Skatrud Pulmonary and Sleep Physiology Laboratory directed by Mihaela Teodorescu, MD in the Allergy, Pulmonary and Critical Care Division, and Sleep Disorders Center of the Department of Medicine.

The work broadly addresses mechanistic pathways whereby chronic lung disease (asthma, pulmonary fibrosis, COPD) and sleep/sleep disorders reciprocally interact. The incumbent will work in rodent models that focus on: 1) role of asthma and related factors in modulating breathing control and upper airway structure and function during sleep and wakefulness; 2) effects of obstructive sleep apnea's features (intermittent hypoxia, respiratory effort) on lower airway function and biology. Additionally, multiple collaborative projects are ongoing to expand findings in the lung to other relevant areas, related to swallowing, pulmonary circulation, systemic cardiovascular function, oncogenesis and bone biology, in rodent models.

The key methods employed include exposures to intermittent hypoxia or mechanical stress (of various durations) concurrent with various respiratory challenges/injuries. Readouts are measures of breathing control and lung properties utilizing plethysmography, FlexiVent systems, gas chromatography, MRI imaging; tongue physiology via nerve stimulation and video-fluoroscopy; oral and bronchoalveolar lavage, multiple tissues harvesting and processing; and analyses of biological specimens (lavage, various tissues) and blood using standard molecular and cellular assays (DNA/RNA prep, RT-PCR, ELISA, Western blotting, histological staining, imaging, and image analysis). Several interventional studies are planned to test specific targets, identified in recent work.

Degree and area of specialization:
PhD in Physiology or related field (including but not limited to Biological Sciences, Cell biology, Pharmacology, or biotechnology

Minimum number of years and type of relevant work experience:
4 years (time spent during graduate PhD training can be counted for this requirement).

Previous experience in respiratory and/or sleep physiology in rodents, and a track record of scientific achievement as evidenced by primary authorship of peer-reviewed publications preferred.

Principal duties:
- Planning and execution of experiments, data collection and analysis
- Obtain and keep up with regulatory approvals and reports to funding agencies.
- Oversee grant budgets, maintain detailed records of experimental procedures, data, and research specimens.
- Closely collaborate with Principal Investigators and researchers involved in collaborative projects.
- Demonstrate continuing motivation/initiative to learn new techniques, devise strategies, as needed, for the expansion of the program.
- Write abstracts and manuscripts, present at scientific meetings, and assist in preparation of grant proposals for extramural support
- Help supervise and mentor medical fellows, residents, graduate and undergraduate students in the Lab.
- Perform other related job duties as assigned or delegated.

**Additional Information:**
- Expertise in operating/maintaining and troubleshooting physiologic equipment
- Excellent reading, writing, and verbal communication skills
- Good knowledge of common statistical software and computer programs
- Project management expertise including the ability to prioritize tasks and excellent time management skills
- Must have excellent interpersonal and organizational skills, work ethic and work well in a collaborative environment.

**HOW TO APPLY:**
To apply for this position, please click the following link: [https://jobs.hr.wisc.edu/en-us/job/503106/research-scientist-respiratory-physiology](https://jobs.hr.wisc.edu/en-us/job/503106/research-scientist-respiratory-physiology). You will be asked to submit a CV and a personal statement/cover letter. In addition, you will be asked to provide three references during the application process.

Successful applicant will be responsible for ensuring eligibility for employment in the United States on or before the effective date of the appointment.

A criminal background check will be conducted prior to hiring.