POSITIONS AVAILABLE AT BRIGHAM AND WOMEN’S HOSPITAL DIVISION OF SLEEP AND CIRCADIAN DISORDERS: Program in Sleep and Cardiovascular Medicine; Phenotypic and Molecular Signatures for Sleep Disorders

**Research Assistant**

The Research Assistant (RA) will participate in a new research program, Phenotypic and Molecular Signatures for Sleep Apnea and Associated Cardiometabolic and Cognitive Traits. The long term program goals are to identify precision medicine approaches for improving the prevention, diagnosis, and treatment of sleep apnea and prevent the development of sleep apnea-associated diabetes, hypertension, and cognitive impairment. The RA will work under the general supervision of Project Manager and Principal Investigator and following established policies and procedures for research studies, will assist with a variety of activities: recruiting and evaluating eligibility of individuals for participation in genetic research and clinical trials of sleep disorders; obtaining informed consent, ensuring all regulatory requirements are met; collecting and organizing subject data; scheduling subjects for study visits, performing clinical research tests; assists with data processing of physiological signals; helps maintain databases and performs data entry; assists with communications to study participants and investigators.

**Research Assistant**

The RA will be working on a new NIH funded project aiming to identify environmental risk factors for sleep disorders in school aged children in Boston. The RA will be primarily responsible for conducting home research visits, which include instructing participants on use of the oximeters, a sleep recorder a mat like device), and setting up the air monitoring devices. H/she also will conduct dust sample collection in the homes using standardized protocols that require vacuuming small areas, and conduct home surveys. The RA also will be responsible for some data processing, data entry and data editing. The RA will maintain contact with participants by phone, ensuring that there are no equipment problems and or concerns about the protocol. Many visits will be in evenings and weekends.

**Senior Study Coordinator (SC)**

The SC will assist the PI in developing and managing a large research program, Phenotypic and Molecular Signatures for Sleep Apnea and Associated Cardiometabolic and Cognitive Traits. The long term program goals are to identify precision medicine approaches for improving the prevention, diagnosis, and treatment of sleep apnea and prevent the development of sleep apnea-associated diabetes, hypertension, and cognitive impairment. Multiple approaches will be used, including: a) systematic integration of large-scale physiological and clinical studies and genomics, using “big data” approaches and rigorous statistical methods to uncover the physiological, genetic and molecular mechanisms for sleep apnea and elucidate the bases for its heterogeneity; b) sophisticated physiological signal processing of sleep study data to generate new disease metrics; c) establishment of an international registry of sleep apnea patients; d) curation of electronic health record data; e) mapping of phenotype data to genomic data; f) support of data dissemination using an “open” resource platform. The SC will oversee the curation and integration of multiple streams of data (including from the EMR, sleep centers, and research cohorts); coordinate study activities and strategic planning across members of the research program; develop and support an on-line patient registry; provide support and strategic guidance to a large patient-centered sleep disorders virtual network; assist with database management and statistical analysis; identify, plan and monitor milestones to ensure multiple project needs are met; develop appropriate reports that provide monitoring and quality control information; oversee procedures for documenting procedures and facilitate data management and data sharing; assist with regulatory requirements.
associated with conducting diverse clinical research projects. Substantial experience and adeptness is required for project management, data management, research regulation, analysis, report preparation, budgeting, implementation of research and clinical protocols.

**Post-Doctoral Fellowship**
The post-doctoral fellow will conduct genetic epidemiological studies using large databases of genomic data and will perform complex trait analysis of sleep and relevant traits. The candidate will interact with national consortia working collaboratively to analyze genotype and sequencing data, and with experts in genetic statistics. Additional research may involve use of electronic medical records data for genetic discovery, deep phenotyping, experimental functional follow-up studies, and development of resources to support precision medicine. Candidates should have knowledge of genetic statistical methods, excellent informatics and database skills, a good publication record, and (preferably) experience with sleep or pulmonary research.