UNIVERSITY OF WISCONSIN
SLEEP RESEARCH LABORATORY

Description and Location

The Sleep Research Laboratory is part of the Clinical and Translational Research Core of the University of Wisconsin. The Research Laboratory is in a dedicated wing of the CTRC unit in University of Wisconsin Hospital and Clinics. The Sleep Research Lab consists of two sleep rooms and a control room. The sleep rooms are used almost exclusively by the Wisconsin Sleep Cohort Study, but are also available for other researchers.

Equipment

Each sleep room is served by a single-bed Grass Technologies Comet Lab - based digital sleep system. The systems have 40 AC channels, 31 referential and 9 bipolar, with 8 DC coupled auxiliary inputs. Both systems are equipped with AS40 research amplifiers having a bandwidth of 1.0Hz-100Hz.

In addition to the two recording systems, the control room also has a reviewer station for data analysis. All systems are networked, allowing for off-site review and analysis.

The two sleep rooms and control room are equipped with state-of-the-art video and audio monitoring. Input/output connections between sleep room and control room are made through in-the-wall connector panels for increased assurance of optimum signal-to-noise ratios.

Polysomnography is obtained from EEG scalp electrodes, electrooculogram, EMG of chin and legs, ECG, snore microphone, airflow from Dymedix nasal-oral thermistor, Pro-Tech nasal pressure transducer, breathing effort from Pro-Tech zRIP inductance plethysmography summation systems, and oxygen hemoglobin from the Ohmeda 3900 oximeter using a 3-second averaging rate.