

Facilities and Resources

The LHC is located in the Russell Building on the campus of New York Presbyterian Hospital. The free-standing, 5,000 square foot space is divided between research rooms and office space.

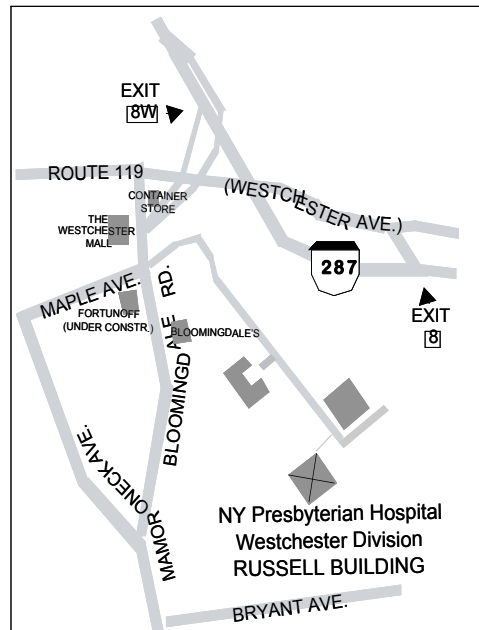
On the research side is a studio apartment with its own kitchen and bathroom in addition to the living /sleeping area. This apartment is shielded from all cues to time of day, with no windows and soundproof walls. The research side also includes a 3-bedroom suite with shared kitchen, bathroom and shower.

Each bedroom in the suite, as well as the isolation apartment, is equipped with satellite TV, VCR, CD/DVD player and other conveniences to make participants feel as much at home as possible during stays in the lab. Additional research areas include a screening and examination room and a cognitive performance assessment room.

Environmental variables, such as ambient light level, room temperature and humidity are controlled by dedicated systems to insure the optimal physical comfort of research participants.



View of a bedroom in the Laboratory's 3-bedroom suite.



Directions

From New York City: Major Deegan Expressway to New York State Thruway to Exit 8 (I-287 East) to Exit 8W. Keep left off ramp and turn left at traffic light. Turn left at next traffic light into hospital entrance.

By Train: Harlem Division of MetroNorth from Grand Central Terminal to White Plains. Taxi to the hospital.

By Subway or Bus: From Manhattan take Lexington Avenue IRT to Woodlawn Station. Transfer to bus #20 or #21 (express) to White Plains Railroad Station. Taxi to the hospital.

From New England: Merritt and Hutchinson River Parkways or Connecticut Turnpike (I-95) to I-287 West to Exit 8. Follow Route 119 (Westchester Ave.) to third traffic light and turn left. Follow to second traffic light and turn left into hospital entrance.

From Northern Westchester: I-684 South to I-287 West to Exit 8. Then proceed as above.

From New Jersey: Garden State Parkway to New York State Thruway (I-87) across Tappan Zee Bridge to Exit 8 (I-287 East) to Exit 8W. Keep left off ramp and turn left at traffic light. Turn left at next traffic light into hospital entrance.

From Upstate New York: New York State Thruway (I-87) across Tappan Zee Bridge to Exit 8 (I-287 East) to Exit 8W. Keep left off ramp and turn left at traffic light. Turn left at next traffic light into hospital entrance.



Sleep for Science

Laboratory of Human Chronobiology



Weill Cornell Medical College
New York Presbyterian Hospital

White Plains, NY

General Information

Scientists at the Laboratory of Human Chronobiology (LHC) conduct both basic and clinical research, with the goal of increasing our understanding of the roles of sleep and other circadian rhythms (from the Latin words 'circa' and 'dies', meaning 'about a day') in maintaining physical health, cognitive productivity and emotional well-being.



Laboratory technicians applying electrodes used to record sleep electroencephalography (EEG).

The LHC is recognized as one of the world's leading facilities for the study of a rapidly expanding field of science, known as chronobiology. Chronobiologists carry out studies to examine how, and to what extent, the body's internal clock is involved in the daily regulation of our physiology and behavior, as well as what factors (biological and environmental) may influence the regulation of the internal, or biological, clock.

The research studies conducted by LHC scientists focus on a wide variety of topics, ranging from how we measure the passage of time to why we experience jet lag; from why we prefer to sleep at night to how best to overcome the effects of sleep deprivation.

On the cover: Front view of the Russell Building, location of the Laboratory (see map on back).

Research Topics

Although the specific areas of study in the laboratory are ever-changing to keep pace with this developing field, the following, current research topics illustrate our general research interests:

- Investigating the multiple factors underlying age-related changes in sleep.
- Development and evaluation of treatments for age-related sleep and biological rhythms disturbance, using interventions such as timed exposure to bright light, melatonin, or scheduled naps.
- Detailed examination of human circadian rhythms across a wide age range, and in individuals with circadian rhythm sleep disorders. Behavioral and molecular rhythms are studied in both normal individuals and those with advanced or delayed sleep phase disorders.
- Investigating the interaction between sleep and thermoregulation.
- Assessing relationships between sleep quality and waking function in aging and under altered sleep schedules, such as in shiftworkers.
- Studying the effects of sleep deprivation on cognitive functioning and determining optimal strategies for recovery from sleep loss.




Sleeping area of the Laboratory's studio apartment.

Research Staff

The faculty of the LHC includes Scott Campbell PhD (Director) and Patricia Murphy PhD (Associate Director). Both are recognized internationally as experts in the study of human sleep and chronobiology, and together have more than 40 years of research experience. The facility is supported by postdoctoral fellows, students, research associates and other specially trained technicians and data analysts. In addition, faculty and staff of Weill Cornell Medical College are actively engaged in the Laboratory's research. The LHC also maintains collaborations with scientists at other institutions including the New York State Psychiatry Institute, Rockefeller and Columbia Universities, the University of South Australia, the University of Pittsburg and the Juvenile Bipolar Research Foundation.

Research Support

The research program of the Laboratory of Human Chronobiology is supported primarily by grants from the National Institutes of Health, private foundations and industry, as well as by the Department of Psychiatry of Weill Cornell Medical College

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