



Research at the Proposed Manhattanville Academic Community

As one of the world's leading institutions of medical and scientific research, Columbia University has achieved breakthroughs in public health, diabetes and asthma treatment, surgical procedures, and many other lifesaving therapies. Numerous professors have won Nobel Prizes and are on the forefront of such areas as neurobiology, medicine, and physiology. Academic research and scholarship are central to the University and reach beyond science and medicine into other key areas such as the arts, business, social work, and more. Columbia's development of a new urban academic community in the old Manhattanville manufacturing zone of West Harlem is vital to enhancing this important public service mission and continuing its leadership in New York City and around the world.

Research, Studies, and Discoveries

The research that would take place in new facilities in Manhattanville would advance Columbia's tradition of discovery and scientific breakthroughs that have in the past led to such innovations as:

- the first clinical use of penicillin
- the first successful model of the El Niño climate pattern
- development of the world's first human blood bank
- the first successful pediatric heart transplant
- fundamental insight into how memory works

The University proposes to develop new academic research facilities over the next quarter century. Because knowledge continues to grow, the type of research activities cannot all be known today but will likely be an extension of studies currently under way at the University. Examples include:

- identifying a possible cause of an inherited form of Parkinson's disease
- investigating new ways to convert waste to energy and clean up the Hudson River
- leading national efforts to identify new genetic risk factors for Alzheimer's disease
- developing treatments and therapies for diabetes in patients of all ages

The Jerome L. Greene Science Center

A centerpiece of the first phase of Manhattanville's proposed revitalization would be the Jerome L. Greene Science Center, a new research and teaching facility that will serve as the intellectual home for Columbia's expanding initiative in mind, brain, and behavior. The center will include laboratories in which Columbia scientists will explore the causal relationship between gene function, brain wiring, and behavior. This research will play a key role in helping to fight such devastating diseases as Parkinson's and Alzheimer's and will be instrumental in helping to improve the lives of those suffering from autism, dementia, and schizophrenia.

The center is made possible by a gift from Dawn M. Greene and the Jerome L. Greene Foundation to honor her late husband, Jerome L. Greene (Columbia College '27, Columbia Law School '28), a prominent New York lawyer, real estate investor, and philanthropist. The center will be led by renowned neurobiologist Thomas Jessell and will include Richard Axel and Eric Kandel, both of whom have won the Nobel Prize in physiology or medicine.

Safety, Responsibility, Community Involvement

Columbia is committed to the highest standard of health and safety in the workplace, environment and in the community. Guidelines and policies are in effect to reduce or eliminate

health and safety risks in all research settings, including all laboratories on its campuses.

Columbia has a team of 30 specially trained professionals who inspect our facilities, identify and control hazards, plan for emergencies, and provide training and education to the University community.

University research facilities are regularly inspected by the New York City Fire Department and are subject to inspections by other city, state, and federal agencies. Columbia University Medical Center recently partnered with the U.S. Environmental Protection Agency (EPA) and conducted an environmental review of all its facilities, including laboratories.

Because the University takes seriously its role as a member of the community, it has a longstanding practice of including community consultation in review of academic research, and community representation in research oversight. This means an independent community member sits on each of Columbia's four Institutional Review Boards and the Institutional Biological Safety Committee.

Northern Manhattan is home to nearly one-third of our non-teaching staff. Hundreds of Columbia faculty and their families already live adjacent to the area in 560 Riverside Dr. And thousands more Columbians would work and study in the area. So maintaining a safe environment is a concern and value we all share at the most personal level.

Laboratories

Federal and professional standards define four biological safety levels (hazard categories), Level 1 indicating the least hazardous and Level 4 the greatest in the use of infectious material.

Columbia currently has two Level 3 labs that have specially designed ventilation systems to prevent the release of any infectious materials. At this time, no decision has been made on whether Columbia would build a Level 3 lab at the expansion site. However, the proposal does allow for the opportunity to incorporate such a lab in a building, if needed. Level 3 labs are present in most leading academic medical research institutions, including at peer institutions in densely populated areas of New York City. The proposed expansion will not include any Level 4 labs.

For More Information

To learn more about Columbia's proposed urban academic community, visit www.campusplan.columbia.edu or e-mail us at campusplan@columbia.edu.