

Researchers Collaborate as Funding Pressure Grows; Rising Costs Drive Joint Projects; More Scientists Share Resources, Like Mice

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A few years ago, Dr. Harris Goldstein encountered a roadblock in his efforts to uncover the biological workings of HIV. The AIDS researcher, an immunologist at Albert Einstein College of Medicine, needed access to mice that were highly susceptible to the virus.

Luckily for Dr. Goldstein, he learned that Dr. Dan Littman, an NYU School of Medicine immunologist, had succeeded in breeding mice with that key trait. One phone call and a visit to NYU later, Dr. Goldstein was driving back up the FDR with a box of the precious animals in the passenger seat. The two scientists have continued to collaborate, making important discoveries about the way in which AIDS causes neurological damage.

“There's no question in my mind that if not for the fact that Dan Littman was in New York City, the work we've done would not have occurred,” says Dr. Goldstein.

Boosted by the city's unparalleled concentration of scientists, “cooperation” is increasingly the mantra in New York's famously competitive research community, and scientists are actively seeking opportunities to work together. While such collaboration is not new, it is becoming more institutionalized and arguably more important as challenges and costs multiply and as funders, eager to hasten the discovery process, demand teamwork.

No scientist is an island

“Science is no longer one person working in a lab,” says Jeffrey Pessin, director of Einstein's diabetes research center. “It's a group effort, because the problems are so complex.”

For many years, New York institutions were protective of their research. In the mid-1990s, when the city was displaced as the top recipient of National Institutes of Health funding, voices in the scientific community began to call for more sharing, at least of resources.

“There's so much that one institution can't do on its own,” says Maria K. Mitchell, president of AMDeC, a consortium of about 30 New York institutions that raises money for collaborative research. “New efforts coming on line can showcase New York and make our investigators more competitive.”

Sheer numbers help drive joint research efforts. The city alone has five major medical schools and numerous independent research powerhouses such as Rockefeller University and Memorial Sloan-Kettering.

“We've all studied together, we know each other, and our students go back and forth between institutions,” says Dr. Joy Hirsch, professor of functional neuroradiology at Columbia University.

The growing cost and complexity of biomedical research are even bigger factors. The \$60 million worth of equipment and infrastructure used for studying the workings of proteins at the New York Structural Biology Center, for example, is well beyond the budget of any one of its members. AMDeC is building a \$10 million mouse-breeding facility in Yonkers, and it's raising another \$10 million to create a Web-based databank of genetic information based on the blood samples of 20,000 ethnically diverse New Yorkers.

Increasingly, funders demand that scientists work together to step up the pace of discovery.

The Bill & Melinda Gates Foundation, for one, encourages collaborative research. It recently awarded nearly \$25 million to the Aaron Diamond AIDS Research Center at Rockefeller University to develop AIDS vaccines in cooperation with Mount Sinai Medical Center and other institutions.

“You take people with strengths and if you can come up with fruitful collaboration, the synergism is tremendous,” says MSK chemist Derek Tan, who works with biologists at Weill Cornell Medical College and other institutions to identify molecules that can be used to target proteins involved in disease.

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