

The DNA of a New Industry

By Harold Varmus

Nearly all scientists are eager to see practical applications of our work. In biology and medicine, recent discoveries have fueled the development of vaccines, drugs and devices that provide enormous benefits to the public's health. Such advances increasingly depend on an active biotechnology sector that can take advantage of basic research.

But ever since moving to New York three years ago, I have been frustrated by the near absence of a biotech industry in the region. Researchers who have worked in San Francisco, Boston or along the Washington-Baltimore corridor know that biotech companies cluster near concentrations of sophisticated academic research. The faculty at academic institutions are often the founders and advisers of these companies and they increasingly send their graduates to find jobs in

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this industry — connections that create productive webs of scientific exchange. But for New York City's biomedical scientists, such entrepreneurial connections can usually be made only with biotech companies hundreds or thousands of miles away.

Why is there a lack of biotech development here? Commercial rents are high in New York, but they are just as high in Boston and parts of California. There are many sites in the five boroughs that have the advantages of nearby mass transit, room for expansion and proximity to academic medical centers. Our academic centers may individually generate fewer patents and spinoff companies than does, for example, the Massachusetts Institute of Technology, but in the aggregate they have for many years made New York City among the largest recipients of federal funds from the National Institutes of Health. These institutions often work together, their scientists are renowned, their patient populations are unequalled for size and diversity and they are surrounded by a supportive business community.

I think the lack of a strong biotech industry here is largely a matter of historical accident and misperception. New York City is said to be known for other things — banking, media, the arts — as though it could not acquire

another skill. The city has been labeled as one that does not encourage biotechnology.

Yet the prospects for biotechnology here could change, rapidly and dramatically, if we decided to promote our many strengths. An informal consortium of a dozen research institutions, business and investment ex-

Making a future for biotechnology in New York City.

perts, and city and state officials convened by the New York City Partnership has now developed a real-estate-oriented strategy for bringing the biotech industry to this region.

The plan proposes development in concentric areas, in three phases. Rapid redesign of space in a few appropriate buildings in downtown Manhattan to form a biotech hub could attract headquarters or information-technology divisions of established companies and even some laborato-

ries. Then, over the next few years, the creation of a citywide ring of commercial laboratory buildings, most near major academic centers, could house both new companies and larger, older firms that serve as anchor tenants. Finally, successful city-based enterprises could expand at suburban locations where some pockets of biotech success already exist.

Even as little as a million square feet and a public investment of perhaps \$300 million from city, state and federal sources could have an enormous impact on the prospects for building a vibrant biotech industry by creating a critical amount of new space. This would not only permit more small companies to be established, it would also help attract larger firms that have plans for growth. To draw such firms here will require active solicitation by political and business leaders, tax incentives and flexible zoning policies.

This transformation cannot happen overnight, even with greater public resources. But by placing a new focus on this industry, we can enhance our medical centers and their faculties, increase the city's economic diversity, reinvigorate neighborhoods and make this region a leader in creating benefits from biomedical advances.