HR&A Analyze. Advise. Act.

MEMORANDUM

To:	New York Blood Center
From:	HR&A Advisors, Inc.
Date:	March 25, 2021
Re:	**NYBC Proximity Study**

In connection with its proposed rezoning and redevelopment at 310 East 67th Street, the New York Blood Center (NYBC) engaged HR&A Advisors to evaluate whether there are advantages to its co-location with other biomedical and life science uses. HR&A's analysis draws upon a review of the literature addressing co-location in general and in life sciences in particular, and upon evidence from existing life science clusters elsewhere in New York City and the United States. Our analysis also draws upon information provided by NYBC staff regarding the nature and extent of their work with neighboring institutions and how proximity to these institutions has contributed to meaningful advances in medical and scientific research.

Key Findings

- The short- and long-term advantages of industry clusters have been described in academic literature and are demonstrated in a wide range of commercial and industrial contexts across the United States. Life science institutions and companies have particularly strong incentives to physically cluster near industry peers, academic and research institutions, and medical facilities, thriving off the concentration of talent and ideas. Proximity facilitates meaningful collaboration and knowledge and resource sharing, which in turn advance scientific and medical discovery; it can speed the commercial availability of what began as experimental medicines; and it helps attract the most talented professionals and others.
- Examples of successful life science clusters in Cambridge, San Francisco, and elsewhere in New York City demonstrate the power of proximity. These clusters show the preference of institutions involved in the life sciences to locate near each other, and of life science companies to locate near other firms and research institutions; the productive partnerships between neighbors; and the advantageous outcomes in terms of research funding, capital investment, talent recruitment, and most importantly, cures, treatments, and technologies that improve people's lives.
- New York City is particularly well-suited to become a national leader in the life sciences. Its medical and academic institutions are among the best in the world, and they provide a strong foundation on which to build the industry. Within this context, NYBC, the Rockefeller University, Weill Cornell, New York Presbyterian Hospital and Memorial Sloan Kettering Cancer Center are together a unique, world-class complex of institutions that can anchor a cluster that adds private firms to develop and commercialize their discoveries.
- New York City lags far behind the nation's leading life science centers in the availability of clustered academic, research, commercial and product development for life science uses. The New York City Economic Development Corporation's Life Sciences Initiative has begun to change this by strategically encouraging the development of commercial facilities that can complement the city's strength as a center for research. The proposed redevelopment at Center East will advance NYCEDC's policy by offering space that attracts firms capable of translating research done by NYBC and its sister institutions into medical advances that serve the public. Being part of this cluster will benefit both the companies that New York City seeks to attract and keep, as well as the institutions that are already

here. It is an important step in New York's growth and its capacity to compete with other cities in this promising industry.

- The new NYBC facility in Center East will also ensure that the bonds between NYBC and the other institutions in its cluster are not broken. NYBC has longstanding, productive research partnerships with virtually all the surrounding biomedical institutions – partnerships that have been responsible for many important medical advances. But these partnerships are not fungible – they rely on close physical proximity and are the result of years, in some cases more than a generation, of cultivation and trust-building. Requiring NYBC to rebuild elsewhere in New York City would abort these relationships, disrupting critically important research work NYBC is now doing with its sister institutions. In addition, it would prevent these relationships from continuing to evolve and deepen, and it would foreclose the benefits that come from working together over the long-term.

The proposed redevelopment of Center East addresses three needs. The first is to serve as a key building block in effectuating the policy of making New York City a national leader in the life sciences by creating a walkable, world class life sciences cluster that includes the existing academic and clinical institutions and new commercial space in the far East 60s. The second is to ensure that NYBC can continue to do its life-saving clinical work and research in a purpose-built facility designed for the 21st century. The third is to ensure that the historic collaborations between NYBC and its neighbors are protected and enhanced so that they have the opportunity to be even more productive in the future.

The Importance of Life Science Clusters

What are industry clusters and what do they offer?

Professor Michael Porter of Harvard Business School identifies clusters as "geographic concentrations of interconnected companies and institutions in a particular field [where] the proximity of companies and institutions in one location—and the repeated exchanges among them—fosters better coordination and trust." Industry clusters have been proven to increase productivity, set the course for innovation, and encourage the formation of new ventures; these benefits all cycle back and serve to further strengthen the cluster.[1]

A Brookings Institution analysis confirms that clustering "helps firms be more productive through three mechanisms: sharing tailored facilities, infrastructure, and suppliers; matching workers productively through deep labor markets; and learning through dense, knowledge-rich environments that facilitate knowledge exchange and innovation between interdependent firms."[2] It also identifies the key criteria necessary for successful cluster formation, namely:

- The ability to leverage local institutions to provide innovation, talent, and public investment
- Dedicated champions who recognize a unique opportunity and are committed to devoting resources to its success
- A physical center – whether a campus, a specific building, or an urban block radius – which provides an important hub that facilitates collaboration and ties companies and institutions together.[3]

Why is the life science sector well-suited for a cluster?

Life science refers to industries and organizations that are enabled by, produce, or facilitate advancements in human, animal, and environmental health. The sector spans the fields of biomedicine, nanotechnology, pharmaceuticals, medical device manufacturing, and life systems technologies and diagnostics, and includes organizations at all stages of research, development, technology transfer, and commercialization. Once focused primarily on research and development, the sector has expanded to included early-stage startup and technology companies. The commercial life science sector serves as the link for translating new ideas and technologies being developed at local academic research institutions into commercially viable enterprises, growing and diversifying the local economy and helping to retain critical STEM talent locally.

Few industries are better suited to reap the benefits of the cluster model than the life science industry.[4] This is because life science companies – which rely heavily on smooth collaboration with others in the ecosystem – have particularly strong incentives to cluster near industry peers, academic and research institutions, and medical facilities.[5] A 2019 study of life sciences laboratory space commissioned by the Philadelphia Industrial Development Corporation in partnership with real estate firms RESGroup and CBRE found that after access to a skilled scientific labor force, walking distance proximity to similar firms and to research centers was cited by biotechnology and life science companies as their most important location requirement. Particularly for startup and midsize-stage companies, being in a life science cluster, close to research institutions, was one of the most frequently identified factors behind locational decisions.[6] Real estate firm Newmark lists a "high concentration of nearby life science, biotechnology and/or pharmaceutical firms" and "anchored by a research university, medical system or research institution" as the top two characteristics of life science clusters.[7] In the same vein, a 2012 study in the journal *Small Business Economics* notes that "large number of studies have demonstrated…proximity effects from knowledge spillovers, network externalities and other forms of knowledge transfers among like firms." It found that proximity effects for small life science firms, as measured by early-stage seed funding from the federal government's Small Business Innovation Research program, are strongest when they are located within 2 city blocks of similar firms and are exhausted within a radius of 1.5 miles.[8]

Co-location of science and medical research institutions with commercial entities expedites the commercialization of discoveries, enabling new products and treatments to improve public health and spur further scientific investigation.[9] Life science clusters are also crucial for talent recruitment and retention. Life science firms want easy access to a robust pipeline of top talent graduating from the country's best life science programs, including institutions – like the Massachusetts Institute of Technology, or UC San Francisco – which anchor existing clusters. In turn, employees and researchers are attracted to dynamic life science clusters because of the opportunities for collaboration, shared resources, and the cross-pollination of ideas.

Existing Life Science Clusters

Much of the life science and biotech industry in the United States is focused in clusters which feature hospitals, research institutions, established private companies, and small startups. These life science clusters provide the specific physical spaces needed for scientific research and product development. In addition, and equally importantly, they offer access to a concentration of talent, knowledge, and innovation among neighboring institutions and firms.

Below, we will look at the two largest life science clusters in the United States, located in Boston and San Francisco, and a New York City-based cluster, located in Kips Bay, to see what has made them successful and the public benefits that have flowed from that success.

United States Life Science Market [10,11]

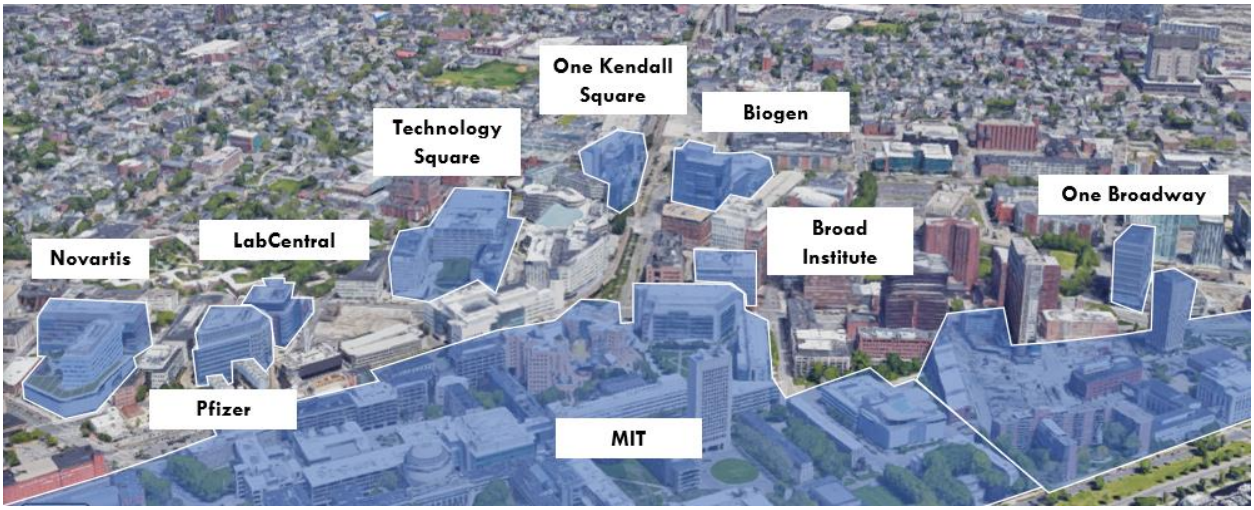
Cluster*	2020 Lab Inventory & Rank[12]	Life Science 2019 Venture Capital Funding & Rank[13]	Life Science 2019 NIH Funding & Rank[14]
Boston-Cambridge	35.2 million SF (#1)	$4.7 billion (#2)	$2.5 billion (#1)
San Francisco Bay Area	29.2 million SF (#2)	$5.5 billion (#1)	$1.6 billion (#4)
New York City	1.7 million SF (#12)	$1.3 billion (#3)	$2.2 billion (#2)[1]

** The information in this table refers to the entire city or metropolitan area. Where available, we provide additional detail on space and funding in the specific submarket cluster (e.g., Kendall Square in Boston/Cambridge, Mission Bay in San Francisco, and Alexandria Center for Life Sciences in NYC) in the paragraphs below.*

Overview of Existing Life Science Clusters

Cluster	City	Anchor(s)	Select Commercial Tenants
Kendall Square	Cambridge, MA	Massachusetts Institute of Technology	Pfizer, Novartis, Moderna, Atlas Venture, Editas Medicine, Genzyme
Mission Bay	San Francisco, CA	University of California, San Francisco	Bayer, Nektar, FibroGen, XCell Biosciences, Vir Biotechnology
Kips Bay	New York, NY	NYU Langone, Alexandria Center for Life Science	Bristol Myers Squibb, Intracellular Therapies, Kallyope, Petra Pharma

Kendall Square | Cambridge, MA



[1] New York City's competitive strengths include the world's largest concentration of academic institutions, the nation's largest pool of scientific talent, and proximity to high concentrations of global pharmaceutical companies. That New York City ranks second in NIH funding but 12th in total lab inventory is reflective of the power of such strengths—particularly the concentration of world-class institutions that make up the bulk of NIH funding—and speaks to the immense future potential of the life science ecosystem should the local supply of lab space be expanded.

Kendall Square in Cambridge, MA – often called "the most innovative square mile on the planet" – is home to one of the country's most well-established life science clusters. Kendall Square is anchored by the Massachusetts Institute of Technology (MIT) and is loosely defined as the area within a 10-minute walk of the Kendall T Station.[15] It houses over 160 biotech and life sciences firms within its more than 10 million square feet (SF) of office space, more than 9 million SF of lab space, 100,000+ SF of retail space, and 2.5 acres of open space. It includes spaces suitable for the full range of life sciences uses, including pure research and commercial development of research discoveries, and for organizations in all stages of growth – ranging from start-up space to office space used by major pharmaceutical manufacturers.

Example organizations that call Kendall Square home (other than MIT) include **LabCentral**, a non-profit shared laboratory facility that offers lab and office space for approximately 60 emerging biotech companies; **Smart Labs**, which provides 52,000 rentable square feet (RSF) of managed, customizable research space; pharmaceutical giant **Novartis**, whose Kendall Square presence makes it the largest corporate employer in Cambridge;[16] **Pfizer**, which opened a 280,000 square-foot, state-of-the-art R&D hub in 2014;[17] and the **Broad Institute**, a biomedical and genomic research partnership between MIT, Harvard, and Harvard-affiliated hospitals; among dozens of others. Kendall Square has also attracted companies that support other stages of the commercialization life cycle, such as **Atlas Venture**, an early-stage venture capital firm that invests in life science startup companies. The value of such a high concentration of life science companies and institutions is reflected in extremely high demand for space in the area: vacancy rates for laboratory space in Cambridge can be measured in "tenths of a percent."[18]

Supported by informal and formal gathering spaces – including organizations like the Innovation Studio, which hosts hundreds of entrepreneurial networking events – the density of life science professionals in Kendall Square fuels the collaboration and knowledge transfers that make life science clusters so successful. The benefits of clustering are as evident within individual buildings as they are between buildings: the 300,000 SF, 16-story building at One Broadway, for example, houses the Cambridge Innovation Center accelerator (which hosts hundreds of startups) and over 20 biotech firms.[19,20] One Kendall Square, which is an 11-building, 682,245 SF mixed-use campus, has 332,000 SF dedicated to life science uses.[21] Tenants there include over 20 life science companies, many of them pharmaceutical firms.[22] Kendall Square also offers a variety of spaces for companies at all life stages – for example, in 2020, Affinivax graduated from incubator space at LabCentral to 48,000 SF of its own space just a ten-minute walk away, and Triplet Therapeutics moved from incubator space at Alexandria Launch Labs to 10,000 SF of its own space in the same building, allowing them to preserve the locational advantages and relationships fostered as they grow.[23]

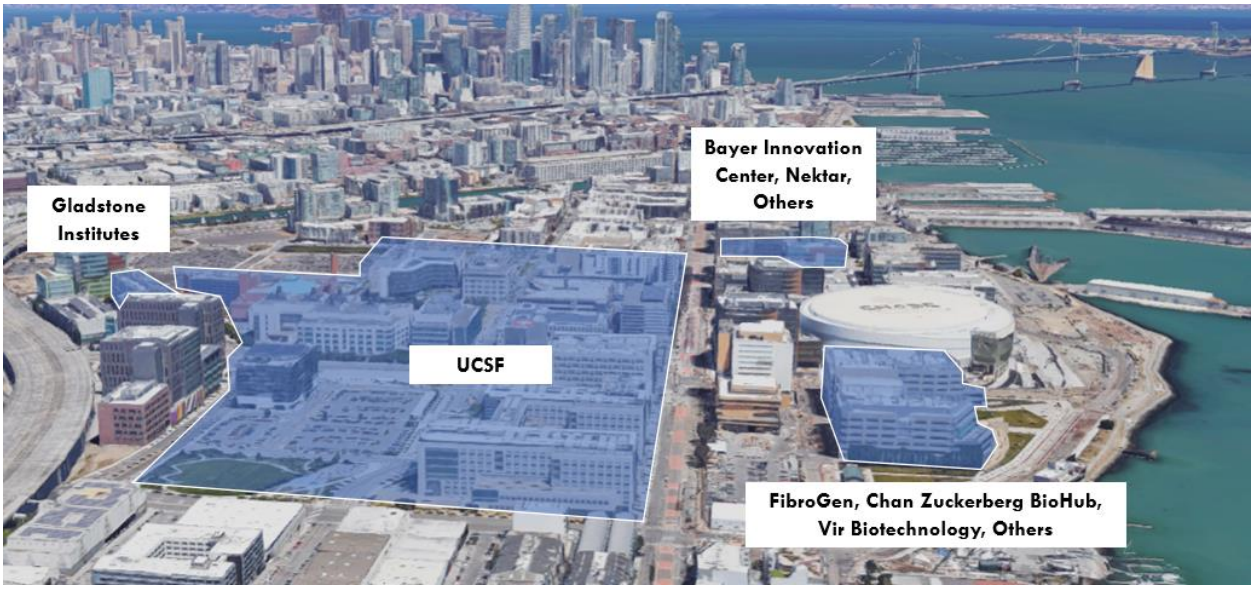
The response to the Covid-19 pandemic has underscored the value added by an industry cluster in the life sciences and illustrated the impact of having a range of companies in close proximity to a research facility and to each other on the speed at which a research discovery can be turned into a critically needed medicine. Moderna and Pfizer, companies that developed the first two coronavirus vaccines to receive emergency use authorization in the United States, both have a significant presence in Kendall Square.[24,25] Moderna's co-founder is an MIT alumnus and faculty member,[26] and much of our understanding about messenger RNA – the vaccines' mechanism – comes from work done at the university.[27] Thermo Fisher Scientific, headquartered in nearby Waltham, MA and with a Kendall Square presence through its sponsorship of a new LabCentral facility[28] and its acquisition[29] of Brammer Bio,[30] is one of the foremost manufacturers of ultra-low temperature freezers, in high demand from Pfizer and Moderna for vaccine development and storage.[31]

The cluster effect in Kendall Square is so powerful that since 2010, Cambridge-based companies represented approximately 33% of all life science mergers and acquisitions in Massachusetts.[32] Additionally, the Kendall Square cluster is a large part of why Boston consistently leads U.S. cities in NIH funding awards.[33] In 2019, institutional NIH funding in Cambridge was $226 million and private NIH funding was $175 million,[2]

[2] Institutional funding reflects hospitals, universities, and research centers. Private funding represents private sector firms or commercial biotech enterprises.

totaling $401 million for the city of Cambridge overall, out of $2.5 billion for the Boston-Cambridge metropolitan area.[34] In the last seven years, average annual venture capital funding in Cambridge has increased 471%,[35] making the Boston region second only to the San Francisco Bay Area in life science venture capital investment.[36,3]

Mission Bay | San Francisco, CA



The University of California, San Francisco (UCSF) launched a new biomedical research campus in 2003 in Mission Bay, a formerly industrial area in San Francisco. A large part of the reason that UCSF chose to expand in Mission Bay – a move it considers to be "the single most important endeavor that UCSF has undertaken in its nearly 150-year history" – was so that it would have room to grow its research endeavors. University leadership realized that if they wanted to "generate new bioscience discoveries" to improve public health, they would need the space to attract private sector companies around the campus.[37] As expected, access to cutting-edge facilities – and close proximity to a strong academic anchor – encouraged life science companies to locate in the district. Expansion continues, and at full build out, the Mission Bay cluster will include 4.4 million square feet of office and R&D space, plus the 43-acre UCSF research campus and 550-bed medical center.[38]

In addition to the **UCSF** campus and medical center, the Mission Bay biotech and life science cluster includes players such as the **Gladstone Institutes**, a non-profit research organization focused on cardiovascular, viral and neurological conditions, founded in 1979 and moved to Mission Bay in 2004; the California Institute for Quantitative Biosciences **(QB3)**, a collaboration between the state of California, private industry, venture capital, and 286 faculty affiliates from UCSF, UC Berkeley, and UC Santa Cruz; and the **Chan Zuckerberg BioHub**, funded by a $600 million commitment from the Facebook founder and his wife. The cluster is an innovation hub home to more than 60 life science companies, including **Bayer**, which relocated its California research and innovation teams to Mission Bay from Richmond in 2010; **Nektar Therapeutics**; and **FibroGen.** Other tenants include **Bayer's CoLaborator** incubator, which spans 30,000 square feet and two floors of shared lab space and markets itself on its short walking distance to Mission Bay collaborators;[39] **MBC**

[3] Please refer to the "*United States Life Science Market*" table at the beginning of this section for additional context on NIH and venture capital funding.

BioLabs, a 24,000 SF facility that has been home to over 125 startups;[40] and **Rock Health**, a seed fund that works with startups in the health technology space.[41]

Like other life science clusters, Mission Bay fosters collaboration and partnership among those located close by. **Xcell Biosciences** began as a startup in the QB3 incubator and then moved a 10-minute walk away to the Bayer CoLaborator space, where it then partnered with Bayer on a study of pancreatic cancer cells.[42] CoLaborator companies leverage facilities and resources, such as access to imaging services at UCSF, from nearby academic and medical research partners.[43] For similar reasons, the ability to "literally walk across the street" to UCSF was "key" to Pfizer's decision to locate its Center for Therapeutic Innovation in Mission Bay when it began its drug discovery research partnership with UCSF in 2010.[44] Gladstone Institutes and **Vir Biotechnology** – neighbors in Mission Bay – are partnering on antiviral therapeutics.[45] Vir Biotechnology continues to prioritize proximity to other life science institutions and companies – in December 2020, the company, which is also studying monoclonal antibody treatments for Covid-19, subleased an additional 134,000 SF to add to its presence in the Mission Bay cluster.[46]

In 2019, UCSF was awarded $685 million in NIH funding, the second-highest amount by institution in the country after Johns Hopkins, while the Bay Area overall received $1.6 billion in NIH funding. In 2019, the San Francisco Bay Area had the highest level of life science employment and life science venture capital investment of any metropolitan area in the United States.[47,4]

Kips Bay | New York, NY



New York City's premier existing life science cluster, located in the Kips Bay neighborhood near the East River, is anchored by the NYU Langone Medical Center and the adjacent Alexandria Center for Life Science. In 2005, the City of New York selected Alexandria Real Estate Equities to develop the East River Science Park (now known as the Alexandria Center for Life Science, or ACLS) at 29th Street and 1st Avenue, making

[4] Please refer to the "*United States Life Science Market*" table at the beginning of this section for additional context on NIH and venture capital funding.

it the first – and to this day, only – ground-up urban life science campus in New York City. The success of ACLS is also largely attributable to the benefits of clustering. Following its designation, Alexandria worked closely with the City to develop the East (2010) and West (2013) Towers, today home to nearly 730,000 SF of rentable space and 2,500 workers. The developer filed permits last year for its third and final tower, which will deliver an additional 550,000 RSF of wet-lab-capable space, bringing total campus employment to more than 4,000 workers.[48] The campus also includes public open space, an urban farm, waterfront esplanade, restaurant, cafe, and conference center, all of which are designed to foster collaboration within a walkable setting.[49]

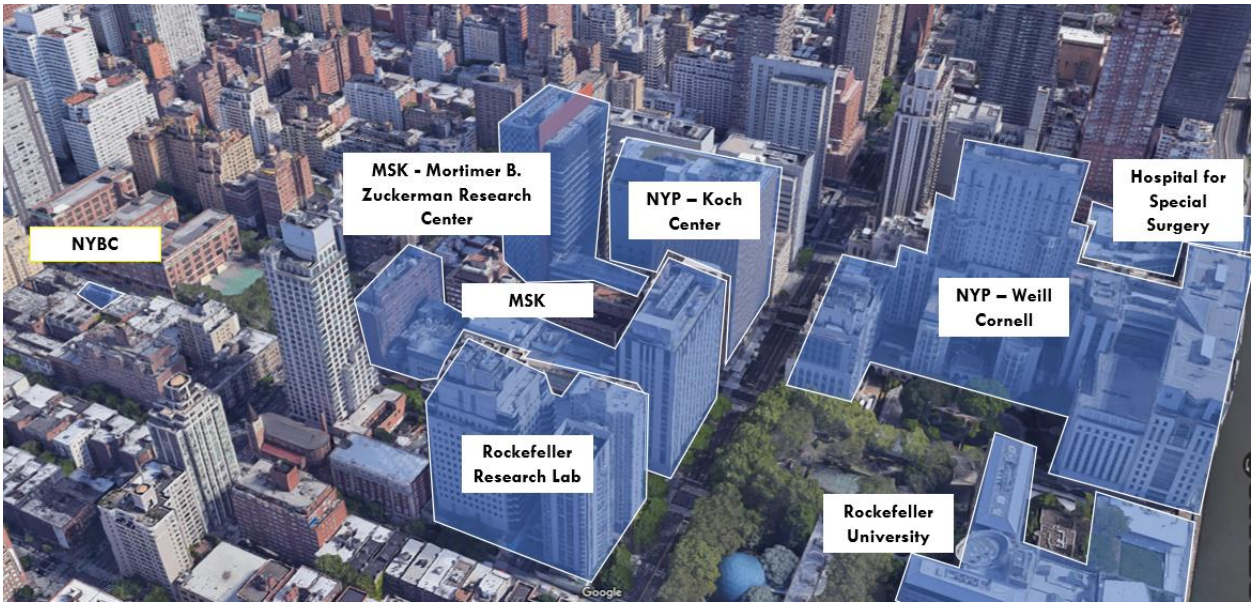
In addition to **NYU Langone**, other medical facilities in the cluster include **Bellevue Hospital**, and the Manhattan **VA Medical Center.** The **Hospital for Joint Diseases Orthopedic Institute** and **Mount Sinai Beth Israel Medical Center** are also within a one-mile radius. More than 50 commercial tenants currently occupy the East and West Towers at ACLS, including **Bristol Myers Squibb**, **Intracellular Therapies**, and **Kallyope**. **Pfizer's** Center for Therapeutic Innovation has its New York City home at ACLS, and the cluster also hosts **Alexandria Launch Labs**, the seed-stage startup incubator.[50] Demand for space in the cluster has proven resilient; vacancy rates at ACLS were just 2.7% in December 2020[51] (compared to 15.5% availability in Manhattan's general office market in Q4 2020)[52] and at the height of the pandemic, **BlueRock Therapeutics** signed a lease for a 20,000-square-foot expansion at ACLS.[53]

In September 2020, the City of New York opened its own Pandemic Response Lab dedicated to quickly processing Covid-19 tests for the NYC Health + Hospitals network. The Mayor chose to locate the new testing lab at ACLS using technology licensed from neighboring NYU Langone Medical Center.[54] Co-location at ACLS has benefitted life science commercialization as well. When **Petra Pharma** – a cancer treatment startup and ACLS tenant – launched a $48 million Series A funding round in 2016, initial investors included **Accelerator Life Science Partners** and **Eli Lilly**, both also ACLS tenants.[55]

The New York City metro area received $2.1B in NIH funding in 2018 – the second highest amount nationally.[56] The city's life science sector also received $309M in venture capital funding in 2018.[57,5] Given the center's extremely low vacancy rate and plans moving forward for construction of the third tower, the ACLS cluster is helping to keep that funding in the city, responding to the demand for graduation and step-up space for startup companies coming out of New York City-based universities, accelerators, and incubators.[58]

[5] Please refer to the "*United States Life Science Market*" table at the beginning of this section for additional context on NIH and venture capital funding.

The Importance of the New York Blood Center Current Location



The Upper East Side is currently a leader in New York City's biomedical ecosystem, with an expansive range of patient-care services and industry-leading research conducted by many of the city's premier hospitals and research institutions. A core strength of this ecosystem is the proximity, over more than one-half a century, of medical professionals across clinical, research, and educational programs and the collaborative potential derived through that proximity. More specifically, NYBC, located at 310 East 67th Street, **Memorial Sloan-Kettering (MSK) Cancer Center**, **Hospital for Special Surgery** (HSS), **New York Presbyterian** (NYP), **The Rockefeller University**, and **Weill Cornell Medicine** (WCM) are all within a 6-to-7-minute walking radius of each other.

NYBC is one of the largest independent, community-based, nonprofit blood centers in the United States. Together with partners in New York Blood Center Enterprises, it annually provides over one million blood products, more than 450,000 laboratory and multi-assay infectious disease tests, and over 12,500 specialty clinical procedures to hospitals nationwide. Its research efforts have led to groundbreaking discoveries, including the first hepatitis B vaccine, the first solvent/detergent viral inactivation process to ensure plasma safety, and the first FDA-approved stem cell product, HemaCord. The New York Blood Center's innovative work in hematology, blood banking, transfusion medicine, infectious diseases, epidemiology, and cellular therapies – and the work done by neighboring institutions – has been bolstered by the cluster effect.

The premier institutions of the Upper East Side biomedical corridor focus precisely on those types of patient care services that overlap with NYBC's research specializations. For example, Weill Cornell's Center for Blood Disorders is a national leader in patient care for treatment of thalassemia and immune thrombotic thrombocytopenic purpura (ITP).[59] NYBC's innovative research into both disorders often requires very fresh blood samples, something that Weill Cornell's concentration of thalassemia and ITP patients just a short walk away makes possible. Walking distance proximity is logistically and practically important to research collaborations. Researchers currently transport some samples across the street by hand; with many time-sensitive assays and samples, the ability to avoid a taxi or subway trip with packaging on ice could help prevent the sample from becoming compromised. In fact, according to one laboratory head, NYBC was able to secure two NIH grants to study platelet disorders in part because of its location within five minutes of the clinic.

NYBC has similar longstanding research partnerships with virtually all of the surrounding institutions, the result of years of cultivation and trust-building. Among ongoing and recent partnerships:

- NYBC has been working for over a decade with Weill Cornell – located 3 blocks away – to understand the disease biology of platelet disorders. The two institutions have also been partnering on improving transfusion management for patients with thalassemia; on translational studies on blood donor characteristics and improving cellular therapies; and on an NIH-funded study of blood safety surveillance and the optimization of transfusion practices.
- NYBC has partnered with Memorial Sloan Kettering Cancer Center – located 2 blocks away – for over 20 years on the study of cord blood transplantation safety and efficacy. They have also partnered on work to develop a stem cell mobilization drug for patients with sickle cell disease and on work to develop novel T-cell therapies using stem cells derived from cord blood.
- NYBC also has an established working relationship with The Rockefeller University. Research collaborations between the two institutions have led to the discovery of novel genetic regulators in blood cell development and new treatments for sickle cell disease. Recently, the partnership has studied the serological characterization of antibodies in convalescent plasma from Covid-19 patients.

These decades-long partnerships – both the institutional connections and the individual personal and professional relationships – would not be easy to replicate in another life science cluster given the overlap between primary research focus and patient care specializations among the existing surrounding institutions.

These and many other successful partnerships would not have been possible were NYBC and its neighboring institutions not located within walking distance of each other. Scientists who work at NYBC describe the value of impromptu discussions with partners and the organic exchange of ideas that happens without having to schedule a meeting or a phone call. Researchers also mention that the close proximity makes it possible to attend and give presentations, seminars, and lectures at neighboring institutions to which they would otherwise be unable to sacrifice the time from their workday traveling to. Multiple NYBC researchers and staff also hold appointments at other institutions within the cluster. For example, Mohandas Narla, who studies red blood cell physiology, is an adjunct faculty member at the Laboratory of Blood and Vascular Biology at The Rockefeller University and Dr. Christopher D. Hillyer, President and CEO of NYBC, is a Professor in Weill Cornell Medical College's Department of Medicine. NYBC also hosts fellows from neighboring institutions, who enjoy the same benefits of proximity in their reverse commute.

The Importance of Keeping Center East at NYBC's Current Location

Locating Center East on the existing NYBC site will do more than ensure that the existing complex of research and clinical institutions maintain the historic and mutually beneficial working relationships that have been built on their proximity to each other. It will enhance those relationships by providing NYBC with 21st century space in which to continue its mission and create new ones by offering purpose-built space for commercial product development that will both benefit from and provide benefits to all of the institutions in the complex. Within this newly created cluster, researchers and entrepreneurs will be able to travel between Center East and nearby institutions and to monitor their experiments and staff daily. The proximity between all of the institutions, including NYBC, and the companies engaged in product development in the new Center East will also make it easier for them to maintain strong relationships with each other, to attract, train and retain skilled scientists and lab technicians, and to fuel research and development collaborations that will accelerate scientific progress.

Center East will replace the existing NYBC facility, a 90-year-old converted trade school, with new, purpose-built space designed for cutting-edge research that accommodates the most modern instrumentation and techniques. It will also provide world-class facilities for product development by medical professionals, researchers, and entrepreneurs. The new product development space will be modular, creating adaptable space for tenants that may want to occupy full, half, or quarter floors. This flexibility will allow startups and other small companies to grow in place by tailoring their own space to their evolving use and space requirements. It will also accommodate research teams who seek to have their own space while being co-located within the same floor as collaborators.

NYBC, the surrounding institutions, and the New York City economy stand to benefit from the introduction of commercial life science space at NYBC. Life science ecosystems thrive on research, institutions, and capital. By adding space to support companies at all stages, the Center East development will make it easier for NYBC, Memorial Sloan Kettering, Weill Cornell, The Rockefeller University, and other neighbors to attract high quality employees, to expand the range of research they now do, and to make their discoveries available to the public.

In 2016, the City debuted LifeSci NYC, a $500 million 10-point plan to grow the life science sector, while the State also launched a $520 million life science initiative offering project grants, funding, and performance-based tax credits to support the commercialization of local academic assets, the development of new human health technologies, and the growth of the local advanced manufacturing economy.[60] The proposed development will serve as an important catalyst for placing the Upper East Side on the same trajectory as other successful life science clusters, and add a new and vital component to the activities in the area.

NYCEDC's LifeSci NYC initiative has already signaled the importance of developing a commercial life science cluster at this location through its grant to The Rockefeller University of up to $9 million to house a new incubator for commercial life sciences.[61] This funding will add important product development space to the Upper East Side area. However, at only 26,000 SF,[62] it represents only a drop in the bucket solution when compared to what is being proposed at Center East.

Conclusion

New York City has a major dearth of life science space and needs to grow it significantly to remain competitive. As of Q3 2020, New York City was listed 12th in life sciences laboratory inventory by market; Boston and San Francisco are the top two, with around 18 times as much lab space as New York.[63] While the supply of lab space in New York City is expected to double in the coming years,[64] the City estimates that up to 3 million square feet of additional supply will be needed over the coming decade to create a critical mass of life science activity.[65] Early-stage companies also require access to spaces that allow them to commence or expand operations immediately following new rounds of funding. Without an adequate supply, New York City will be unable to accommodate startups as they grow and expand, resulting in a loss of local talent and intellectual property to competitive markets with greater inventory. The new Center East development will provide some of that critical space needed for dynamic life science companies to start, grow, and most importantly, stay in New York City.

NYBC is a critical part of New York City's life science ecosystem, providing vital services and generating cutting-edge research from the same location where it has been successfully doing so for decades. That location on 67th Street, a stone's throw from some of the world's premier patient care, academic, and clinical research institutions, has allowed NYBC and its scientists to create deep and longstanding relationships that continue to lead to important scientific advancements.

The proposed rezoning and development at NYBC's current site will provide critical commercial and research space, capitalizing on the symbiotic relationships seen in other life science clusters around the country. Without the ability to expand at this location, both NYBC and its neighboring institutions will lose out on research partnerships and will be hindered in their ability to bring discoveries from theory to practical application, and the City will miss a unique opportunity to leverage a complex of world-class academic and clinical institutions into a dynamic, leading life sciences cluster. Center East represents an urgent opportunity to grow New York City's life science ecosystem, to provide high quality and accessible jobs to thousands of New Yorkers, and to establish the city at the forefront of life sciences research and innovation.

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