New York City continues to diversify as the city embraces new industries. Due in part to this diversification, NYC has become an emerging life sciences center with numerous research foundations, academic institutions and medical centers and an increasing supply of lab space. The New York Stem Cell Research Foundation, the Alfred P. Sloan Foundation and the Simons Foundation are just a few of the area’s prominent foundations. Renowned academic medical centers such as Weill Cornell, NYU Langone and Columbia represent strong academic presences that support innovative life sciences research. Additionally, NYC is bolstered by its close proximity to other life sciences enclaves in the greater metro area—namely New Jersey, Long Island and Westchester County. Sizeable clusters of bioscience companies exist primarily in Midtown and Midtown South, while smaller groups are thriving around incubators in Brooklyn and Harlem.

 Millions of dollars are being invested throughout NYC to spur innovative collaboration and attract top talent in the life sciences sector.
Economic scorecard

<table>
<thead>
<tr>
<th>Workforce</th>
<th>Total life sciences</th>
<th>% life sciences to private</th>
<th>Year-over-year growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>14,180</td>
<td>0.4%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Establishments</td>
<td>1,006</td>
<td>0.4%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding</th>
<th>Total life sciences</th>
<th>% to total U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC funding</td>
<td>$719.5M</td>
<td>5.1%</td>
</tr>
<tr>
<td>NIH funding</td>
<td>$1,590.7M</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Total life sciences</th>
<th>% to all patent classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patents</td>
<td>1,713</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

Economic scorecard

Supported by a public-private partnership, NYC’s Early-Stage Life Sciences Funding Initiative has raised $150 million to fund biotech startup growth and create 2,000 jobs.

Life sciences employment composition

- 32.0% non-lab using
- 47.0% lab using

- 2.0% Pharma & medicine manufacturing
- 7.0% Electromedical instrument manufacturing
- 9.0% Medical equipment & supplies manufacturing
- 3.0% Testing laboratories
- 21.7% Research & development
- 55.6% Medical & diagnostic laboratories

Life sciences patents by classification

- 42.1% Pharmaceuticals & biotechnology
- 2.3% Medical equipment & instruments
- 55.6% Crop science

According to the New York Economic Development Corporation (NYCEDC), New York City has the nation’s highest concentration of prominent medical centers and research foundations.

Receiving more than $1.5B in funding from the National Institutes of Health (NIH) in 2014, NYC ranked second nationally in NIH investment across major cities.
New York City

Public-private partnership drives more than 2.0 million s.f. in development

- Industry diversification in NYC’s economic landscape has paved the way for the emergence of the life sciences industry. Top life sciences companies like Pfizer, Forest Laboratories and Bristol-Meyers have established corporate footprints in NYC. Pfizer, Roche and Eli Lilly also have extensive research operations in the city. The New York City Economic Development Corporation (NYCEDC) estimates that approximately 120 bioscience companies are clustered throughout NYC.

- A public-private partnership between industry leaders, top investors, academic institutions and the philanthropic community was established in 2013 to further boost NYC’s competitive position as an innovation center for life sciences. NYCEDC, in partnership with Eli Lilly and GE Ventures, has raised $150 million to date to fund the Early-Stage Life Sciences Funding Initiative. The initiative will create an anticipated 2,000 jobs and invest in early-stage research, with a focus on diagnostic tools and drug testing.

- The Early-Stage Life Sciences Funding Initiative will also add 450,000 square feet of commercial bioscience research and lab space, directly combatting the current dearth of affordable lab space available. A third tower at the Alexandria Center for Life Sciences, totaling 350,000 square feet, will be constructed. A second site in Gramercy Park will become a bioscience research center with 100,000 square feet of dedicated lab space.

- With affordability in mind, some life sciences startups are turning to co-working spaces to get started. Others are opting for short-term office leases with incubator components. Celmatix, for example, committed to a 9,300-square-foot lease in Manhattan and also secured a 1,500-square-foot lab space at a biotech incubator in Brooklyn.

- Construction for Cornell Tech’s new campus is currently under way on Roosevelt Island. The project will deliver 2.1 million square feet of space for the applied sciences, with Phase I’s expected completion in 2017.

Facilities scorecard

<table>
<thead>
<tr>
<th>Supply</th>
<th>New York City Emerging lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rentable lab stock (as % of total stock)</td>
<td>2.81 m.s.f. 99.1%</td>
</tr>
<tr>
<td>Direct vacancy (as % change year-over-year)</td>
<td>41.4% (3.9) ppts</td>
</tr>
<tr>
<td>Number of large blocks over 100,000 s.f.</td>
<td>3</td>
</tr>
<tr>
<td>Under construction (s.f.)</td>
<td>2.45 m.s.f.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pricing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average asking rent (gross) (as % change year-over-year)</td>
<td>$29.64 p.s.f. (12.8)%</td>
</tr>
</tbody>
</table>

Activity key:

Leasing

Sales

Under construction

Large blocks of space

CORNELL TECH
Applied Sciences Campus
Roosevelt Island
2,100,000 square feet
Expected delivery: Phase I, 2017

ALEXANDRIA CENTER FOR LIFE SCIENCES WEST TOWER
Gramercy Park
430 E 29th Street
155,959 square feet

BIOBAT
(at Brooklyn Army Terminal)
South Brooklyn Waterfront
140 58th Street, Building A
486,000 square feet

FORMER PFIZER HQ
Atlantic Avenue Corridor
630 Flushing Avenue
449,176 square feet

Supply

Emerging lab

Construct

Rentable lab stock

(%) of total stock

Direct vacancy

(Change year-over-year)

# of large blocks over 100,000 s.f.

Under construction (s.f.)

Pricing

Average asking rent (gross)

(Change year-over-year)
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