



Life Science Real Estate – Where Money is Moving Fast

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In the last few years, emphasis has grown on life science both as an industry and a real estate sector. The onset of COVID-19 accelerated the focus on life science and has been followed by incredible growth in investor demand. With the increasing attention and demand, ORG wanted to provide research and analysis to fully understand what life science is and the role real estate plays in the industry.

Background:

Through venture capital and initial public offerings, investors set a record in 2020 with \$70 billion of private and public capital in North America being invested into life science companies. This represented a 93% increase from the previous record that was set in 2018 of \$36 billion. Additionally, 2021 is projected to eclipse \$90 billion of funding. This flow of capital has not stopped at the venture capital and initial public offering world. Life science real estate has never been in more demand from both tenants and investors. Life science, along with multifamily and industrial, has driven commercial real estate sales to more than \$193 billion for the third quarter of 2021.

Historically, the life science industry had primarily included pharmaceutical and biomedical companies. These companies not only research and develop drugs and medical devices but also produce them. However, this scope has recently grown to include companies that focus on anything from engineered foods to organic clothing. As technologies improve and more attention is brought to the environment and public health, the growing diversity of what life science encompasses is contributing to the rapid growth in tenant demand. Many of these emerging companies in the life science industry are startups that are being heavily funded with an influx of venture capital money.

Research:

Life science real estate is primarily centered around the three major hubs: Boston-Cambridge, San Francisco-Bay Area, and San Diego. Premier research universities and health care centers have driven demand to cluster in these markets. As life science grows as an industry there are some markets that are emerging. Raleigh-Durham, Washington DC-Baltimore, Philadelphia, Seattle, New York City, Los Angeles and markets throughout the state of New Jersey have all come to light as secondary life science markets. There is still uncertainty as to what secondary markets could emerge as major life science hubs.

Not all life science real estate is created equal. There is a clear dichotomy space used for research and development (R&D) and the manufacturing of life science goods, otherwise known as good manufacturing practices (GMP). While R&D is the lab space of life science, GMP encompasses the manufacturing and production of life science products or devices. It is essential to understand the differences in these two types of life science real estate.

Life science R&D lab space is often what comes to mind for many when thinking of life science real estate. Tenant layouts typically consist of 60% of lab space and 40% office space. R&D lab space requires specialized building specifications including enhanced HVAC and waste disposal systems, large floor plates with a floor load of 125-150 pounds per square foot, floor-to-ceiling heights of at least 15 feet, and separate loading zones. Once developed, R&D lab space requirements are nearly universal which results in reusability of the space and low tenant improvement costs when releasing to new tenants.



R&D real estate supply has increased significantly since the beginning of 2020. This supply has primarily emerged from office space conversions. Office buildings that have the potential for successful life science conversions must have all of the required building specifications for R&D and be located in one of the three major life science hubs.



Life science GMP facilities are the space dedicated to the manufacturing of the goods a life science companies makes. This is differentiated from R&D lab space in many aspects. The GMP facility shell requires very complex planning and buildouts in order to achieve GMP compliance. This is critical as the FDA enforces strict policies in order for a space to be considered GMP compliant. GMP facilities also require more intensive HVAC systems and power supply when compared to R&D lab space. Additionally, GMP facilities

are very specific to each tenant's processes and layout that is required to manufacture their goods. These specific uses result in high tenant improvement costs and low reusability of the space. GMP facilities are concentrated in and surrounding the three major hubs as life science companies demand their GMP facility to be in close proximity to their R&D lab.

Industrial buildings have the potential to be converted into GMP facilities much like the opportunity to convert office buildings into R&D labs. Older, out of style industrial properties with at least 22-25 foot building clear height and grade level doors typically can fit the specifications for potential conversion. While general specifications may be met, intensive capital upgrades would be needed to retrofit the property for potential GMP tenants.

Life science real estate has received increasing amounts of focus and capital from the institutional real estate investing world. The unique dynamics of life science real estate pose questions to how it will react to the recent influx of focus and capital. Nearly all of the capital flowing into life science real estate is focused on the top three major hubs. As of the third quarter of 2021, the Boston-Cambridge market had 25% of its supply either under construction or in planned conversions and the Bay Area market had 22% while San Diego had 27%. This massive increase in supply is concerning given the potential for oversupply in these three major hubs and the potential for secondary markets to emerge as major hubs. These secondary markets boast much lower rents than the major three hubs and could very easily absorb demand in the long term if significant demand drivers materialize in those markets.

Analysis:

R&D and GMP life science real estate serve different needs in the life science industry, yet both are generally being lumped together in today's market. However, their inherent differences in use make it essential to explore the dynamics between them to fully understand the life science real estate sector. As an investor, there are unique opportunities and risks associated with R&D and GMP facilities.

Currently, R&D real estate is more sought after than GMP. After the initial tenant improvements, R&D lab spaces are universal and therefore have low tenant improvement costs on subsequent lease turns compared to, for example, traditional office. Due to this universal buildout and the ability to lease to a subsequent tenant with little or no tenant improvement costs, tenant credit is less of a factor. This is beneficial because much of the demand for R&D lab space is from venture capital-backed startups that historically have low survival rates. In addition, there is currently an undersupply in these markets, which is driving rents higher and vacancies to an all-time low. The potential to retrofit an underperforming office building, that has the required building specifications, into a highly desired R&D building is an attractive opportunity in today's real estate environment. The potential for conversions can explain why there is a significant amount of capital slated to be invested in the three major life science hubs.

Currently less money is focused on GMP properties with their high tenant improvement costs for highly specialized buildout and limited reusability. With the reusability of the space extremely low, it makes it imperative to focus on long-term leases with credit tenants when underwriting a GMP property.

The capital intensive process to retrofit and older industrial property into a GMP facility may be proving to be too risky for many owners of these older properties. These older industrial buildings are already in high demand and have seen double digit rent growth from tenants' need for "Last Mile" distribution centers. This lack of availability for GMP conversion opportunities is keeping supply of GMP properties in check. However, this can easily change as market fundamentals change with supply catching up to demand with how many of these older industrial properties exist.

Conclusion:

There are many opportunities and many reasons for concern in the life science real estate sector. While money is flowing quickly to invest in life science real estate, it is essential to step back and understand the dynamics and the inherent risks. Similar to the differences in assets within the major commercial real estate sectors, the differences must be understood in life science to fully grasp the rapidly emerging market. While ORG currently does not see R&D real estate as an actionable investment due to aggressive pricing and the pipeline of new supply, GMP facilities may offer attractive opportunities if high quality credit tenants are obtained. The ORG Research Team plans on addressing each of the life science areas (R&D and GMP) separately in more detail in subsequent thought pieces.