

New Jersey | Winter Edition 2019

Life Sciences Spotlight

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Introduction

Welcome to the Winter 2019 edition of Spotlight-the newsletter from Avison Young New Jersey's Life Sciences Specialty Practice Group. Our goal in publishing this newsletter is to share relevant information around New Jersey's life sciences industry from business and real estate perspectives. We want to provide high level information to life sciences executives about how the New Jersey real estate market is addressing the evolving business trends.

In this edition, we hear from Brian Lenz, who shares his thoughts about the challenges of out-of-state operations from the perspective of a life science industry C-suite executive.

This issue presents a recap on the status of recently repurposed life science industry campuses, in particular ON3, the former Hoffman-LaRoche campus in Clifton and Nutley.

We also continue to peer into the future, looking at how technology is creating an evolving revolution in the workplace. As life science tenants continue their battles for talent, and as owners and developers of commercial office space wrestle with capital intensive decisions around how to upgrade existing building stock or how to design smarter new buildings, there will be no denying the pivotal role that technology will play. Life sciences tenants will demand buildings that are future-proofed in terms of their ability to accommodate today's latest technological advances, and also have the

flexibility to anticipate and incorporate technologies that are not yet even on the drawing boards. From employee health, safety and comfort perspectives to energy efficiencies, collaboration, socialization, convenience and other amenities that blur the lines between live, work and play, technology will be the driving enabler of the successful building of the future that delivers an exceptional workplace experience!

Executive Perspective - Brian Lenz, EVP & CFO, ADMA Biologics

Challenges of operating a life sciences company outside of New Jersey.

There are several important factors for a life sciences company to strategically consider when deciding to operate outside the state of New Jersey. Below are three critical and inter-related factors that benefit life sciences companies located in New Jersey:

- Access to capital
- Access to talent
- A public sector partner that is supportive of their evolving needs and maximizes growth opportunities from every possible perspective

And while some regions outside of New Jersey provide 1 or 2 of these 3 critical factors, it takes the unique intersection and integration of all 3 factors to create the formula for success that the life sciences industry needs, a formula that is frankly difficult to find outside of New Jersey.

Capital should be plentiful and available. The resources that surround such capital must be convenient and accessible, whereby life sciences executives can get in front of investment bankers, venture capitalists and hedge fund managers within an hour or 2 by car or public transportation, without the need to deal with the stress and time-consuming aspects of air travel.

Attracting and retaining talent is one of the most significant challenges faced by all successful companies and, for life sciences companies, is even more challenging when much of this talent must be highly educated in the STEM disciplines. Sources of such talent are not merely limited to institutions of higher learning. Much talent can be sourced from existing life sciences companies who tend to locate near each other in distinct corridors or clusters.

A local government that goes beyond being just "industry friendly" is also a vital ingredient in the rare integration of factors required for the success of a life sciences company. Local governmental entities, particularly at the state level, must have the willingness and ability to deliver on promises made, facilitating the flow of capital and cultivating the growth of the talent pool. Again, while there are states with strong public sector support for growing industries, those states who also do not hit the mark for both access to capital and talent will not present a robust argument to attract life sciences companies.

So, in reality, the challenges in operating a life sciences company outside of New Jersey are fundamentally interwoven with why New Jersey is such an excellent state for a life sciences company to operate in, i.e.-that unique intersection of capital, talent and demonstrable public sector commitment to the industry.

New Jersey continues to be a strategically critical region of the United States for life sciences companies at all levels of their corporate "life cycle"-from start-up to fully mature and everything in between. Depending on each company's unique circumstances-who they are, what they do and how they are funded, New Jersey can accommodate the full range of functionality for a life sciences company. This includes office space for administrative, sales and marketing and executive uses; laboratory friendly spaces with robust infrastructure for research and development; and flex/industrial spaces with the appropriate ceiling heights, access to key transportation routes and loading facilities for manufacturing and logistical operations.

New Jersey's adjacency to New York City as well as close proximity to several other areas where respected bio-tech/pharma hedge fund and investment banking decision makers are located, provides unparalleled access to capital. New Jersey is also close to the crucial industry resources that surround this financial "hub", creating the ability to readily develop important industry networks and attend the many valuable investor conferences throughout the year.

We should also never underestimate the exceptional pool of talent available to life sciences companies in New Jersey. This talent comes at all levels-from the deep resource benches of the many life sciences companies already located in New Jersey to the continuing stream of young talent coming out of New Jersey's premier higher educational institutions, including but not limited to Princeton University, Rutgers, Stevens Tech and NJIT.

Finally, New Jersey's Governor, the EDA and several other visible organizations like BioNJ and the NJ Tech Council, are deeply committed to growing the life sciences industry in the state. They continue to develop and actively promote programs to incentivize entrepreneurship, encourage collaboration, develop accessible research and provide financial support in order to create new life sciences jobs in New Jersey.

This uniquely integrated set of assets-capital, talent and a supportive state government, creates a compelling argument for life sciences executives to seriously consider remaining in, or relocating to New Jersey.

Repurposed Pharma Campuses-Recent News ON3

One of the most visible redevelopment projects in New Jersey is ON3, the transformation of the former Hoffman LaRoche campus in Nutley and Clifton. "Early Adopters" included Modern Meadow, a bio-fabrication company, Hackensack Meridian School of Medicine at Seton Hall University, and Seton Hall's Graduate College of Nursing and School of Health and Medical Sciences. Hackensack Meridian is also creating a National Institutes of Health designated the Clinical Research Center.

The developer, Prism Capital Partners, will be constructing a four story, 150,000 square foot speculative lab building on the campus, while Quest Diagnostics will be building a flagship, 250,000 square foot lab employing 1,100 people.

"The expansion of R&D facilities at ON3 signals the region's continuing rebirth of life sciences and biotech on a site that was once home to healthcare pioneer Hoffmann-La Roche," says Prism principal partner Edwin Cohen. "Governor Murphy's vision of New Jersey becoming the destination of choice for innovative companies and creating jobs is coming to life at this campus."*

*Globestreet



Bristol-Myers Squibb/Celgene

Bristol-Myers Squibb's recent \$74 Billion acquisition of Celgene raises both questions and opportunities for the New Jersey real estate market. It is estimated that Celgene owns or leases 2,174,000 square feet of office and manufacturing space in New Jersey. This includes Celgene's two building, 950,000 square foot corporate headquarters on a 36-acre campus at 86 Morris Avenue in Summit and a multi-building, 226-acre campus at 556 Morris Avenue in Summit.

According to publicly available information, Bristol-Myers Squibb's real estate portfolio in New Jersey totals 2,371,000 square feet. This includes 855,000 square feet of owned space at 3551 Lawrenceville-Princeton Road in Princeton as well as 681,000 square feet at 311 Titus Mill Road in Hopewell.

The obvious questions include how much space does the merged entity need, how much of that space is office versus manufacturing versus R & D, what is the most cost-effective way to leverage this more than 4.5 million square foot portfolio, and what, if anything, will the State of New Jersey do to maximize the retention of jobs?

We will be following this closely!

Merck-Whitehouse Station

Another visible campus is the 1.24 million square foot former Merck headquarters, located on 1,100 acres in Whitehouse Station. This asset was recently acquired by Unicom Corp, an IT services company based in Beverly Hills, California. The property will be renamed UNICOM Science Park I & II and will be used as Unicom's New Jersey/New York regional headquarters.

Feature Article Technology and the Workplace - An Evolving Revolution

We believe the future is now, with technology advancing, evolving and becoming even more accessible and cost effective. We therefore thought it would make sense to step back and take a more strategic look at where we have been, where we might be going and what it all could mean for life science tenants.

Introduction

As we explore the landscape for life science occupiers of office space in New Jersey, we are struck with several underlying and recurring themes:

- Technology overwhelmingly drives how life science tenants and their landlords will make decisions
- Tomorrow's office buildings must respond to the diverse needs of multiple generations of workers in the life sciences industry
- The goals of users and providers of space will revolve around curating an exceptional workplace experience
- It boils down to ATTRACTING AND RETAINING TALENT

Catching Up with the Future Workplace

The office sector continues to evolve both nationally and in New Jersey. Life science tenants as well as building owners are faced with anticipating and responding to the diverse needs of 4 generations of workers, complicated by rapidly emerging technologies, all converging to create new challenges in the battle to attract and retain talent. Life science tenants are demanding more from their office space and the buildings they occupy, seeking cutting edge amenities and contemporary environments that will address their needs for the flexibility and enhanced collaboration that facilitate consistent productivity.flexibility and enhanced collaboration that facilitate consistent productivity.

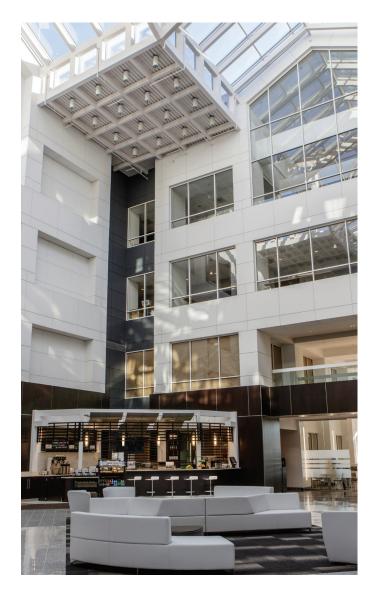


Life sciences industry executives are keeping close eyes on this workforce evolution and understand they need to provide the multiple generations comprising today's office workers with a versatile, collaborative atmosphere in order to create a more productive and enjoyable work experience. In today's so-called "sharing" economy, the desire for collision space - work areas that essentially create collaboration by allowing human interaction - has grown exponentially.

Landlords also realize they can become part of the solution to the challenges that tenants face in attracting and retaining talent. For example, the Bell Works campus in Holmdel NJ demonstrates how a developer has created a workplace experience responding to the issues of attracting and retaining talent in a cost effective, technology rich environment.

The two million square foot Bell building had become the classic "white elephant" property because of its size and high upkeep costs. In 2013, the asset was reimagined into a modern building that would appeal to multigenerational office workers. The redeveloped Bell Works property now includes a 100,000-square-foot ground floor open space that has become a flourishing hub of daily activity, with coffee shops, popup restaurants and a wine bar. The building is creating the same cool and collaborative vibe found in shared office spaces, only on a much larger scale, and has become a recruiting tool for tenants.

Attracting and retaining talent over the next few years will become an even greater challenge for the life sciences industry in New Jersey as the competition for intellectual capital increases. The lure of offering a unique and amazing workplace will make a significant difference when recruiting top talent. Although renewing a lease can often be a preferred option when the "traditional" reasons to relocate are not important, the future is now and it's no longer traditional. Life science tenants should carefully consider whether or not their current building and their spaces within, are capable of appealing to their immediate and longer-term talent needs before renewing





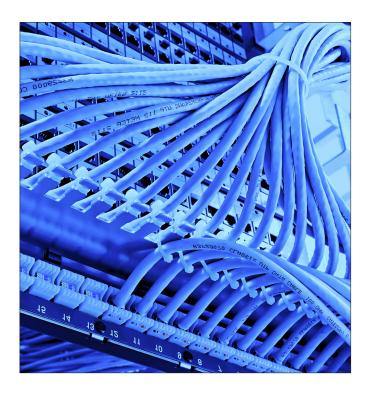
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Innovate Before Renewing

The decision to either renew an existing lease or relocate creates a unique opportunity for the life science tenant to challenge the status quo and more closely align their real estate objectives with their business strategy. Besides the "usual" questions about how well the current space will address projected business requirements and how competitive renewal terms will be, today's smart life science tenants are also focused on how their current building as well as their space within, can help attract and retain talent. Specifically, does the building have the technology and amenities to address the needs of a diverse and progressively younger workforce?

Life sciences industry business leaders are always searching for the right formula to allow their employees to thrive, in terms of productivity, wellness, motivation and morale. The most successful life science organizations are the ones who continue to leverage technologies both within their space and within their buildings. Establishing an amenity and technology rich workplace takes vision, innovation, planning and investment. Part of the challenge is that technology is an evolving concept. Just within the last few years, Al, robotics, and the Internet of Things (IOT) have emerged and changed the way buildings are designed and outfitted. But whatever the future holds, landlords that provide tenants with useful and accessible technologies are the ones who will flourish.

Before renewing, life science tenants need to question whether or not their current building will be able to drive their future success. Are they asking if the building has the technological backbone and amenity package required to attract and retain talent? Can their space





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within the building accommodate the technologies that will empower staff to be more collaborative, provide a more flexible work environment, enhance productivity, maximize energy efficiencies as well as comfort and contribute to physical and emotional wellness? The life science tenants who ask these questions well ahead of an impending lease expiration date are afforded the opportunity to develop better information around a renewal or relocation decision, creating the appropriate negotiating leverage that best supports the current and future needs of their business.

Technology and amenities continue to change the dynamics of the modern workplace and the most successful life science tenants have learned that these elements will enhance the work-life quality of a mobile, active and evolving workforce. The winning landlords are shifting from adapting technology to fit their buildings to changing their buildings to accommodate technology. Before deciding to renew, life science tenants in any sized space should take a long, hard look at their current office environment, ask the right questions and decide if the building and their workplace deliver the amenities and technology needed to attract and retain the talent that will in turn support and sustain their business objectives.





As will be further explained below, the life sciences industry in New Jersey has been a major factor in the absorption of commercial real estate so far in 2018. As they envision their new spaces, life sciences companies are faced with anticipating and responding to the diverse needs of 4 generations of workers, complicated by rapidly emerging technologies, all converging to create new challenges in the battle to attract and retain talent. Life sciences tenants are demanding more from both their office space and the buildings they occupy, seeking cutting edge amenities and contemporary environments that will address their needs for the flexibility and enhanced collaboration that facilitate consistent productivity.

Life sciences executives are closely watching this workforce evolution. They understand the need to provide the multiple generations comprising today's talent pool with a versatile, collaborative atmosphere in order to create a more productive and enjoyable work experience. In today's so-called "sharing" economy, the desire for collision space - work areas that essentially create collaboration by allowing employees and tenants to interact with each other - has grown exponentially.

With the continued growth of entrepreneurial startups, including incubators, a steady increase in freelancing and the flexibility provided by mobile connectivity, the legacy of traditional workspaces is fundamentally changing. Progressive employers understand that providing an enriched experience is an important factor in attracting and retaining talent. A growing percentage of today's office workers are seeking alternative and more adaptable workspaces where they can be productive on their own terms and, equally important, work in a communal atmosphere that allows for a more collaborative experience.

Office buildings remain a fixture of the modern workplace. Even in an era when telecommuting continues to impact how and where work "happens", the office building is here to stay. With that being said, not all office buildings are properly equipped to handle a changing workforce and the kind of technology Life Sciences tenants now require in a modern office environment. Buildings in the future must be smarter, hipper and more flexible than ever.

Technology continues to be a critically important driver in the office market that's changing the workplace from "where workers go to work" to one of "work is where the worker is". While much has been published about the impacts of tech on attracting and retaining talent, little has been written about how the commercial real estate sector will actually meet rapidly emerging trends such as AI, robotics, increased digitalization, advanced environmental, energy, comfort, security and lighting controls, sensors to track and measure occupancy patterns in and out of a building as well as within a tenant's demised premises, the growing importance of a healthy workplace, semi-autonomous vehicles and the Internet of Things (IOT). All of these are changing the way new office buildings are designed and how older stock is renovated and repositioned.

In their quest to develop and create office buildings that are attractive to the employees of talent-hungry life sciences companies, landlords must make the capital investments required to add "cool" building amenities such as rooftop lounges, wine bars, creative ride-sharing programs, flexible, accessible fitness choices and other features that promote socializing and creativity. While these amenities can certainly be attractive for a business looking for extra perks in its office environment, the most successful building owners will be those also making strategic investments in "smart" building features and technological upgrades that will ultimately have a greater benefit for the tenant's productivity.

The building of the future is an ever-evolving concept, but the current prospect for the office market sector, especially Life Sciences companies, depends on how owners anticipate and respond to these latest trends. Smart, technically advanced and adaptable buildings with leading edge amenities will bring substantial benefits to both owners and tenants, including lower costs, time savings and enhanced productivity. Simply put, those older buildings that do not adapt will be unable to compete with newer or renovated stock that includes these advanced technology capabilities and amenity packages that essentially blur the lines between live, work and play.



Recent Life Sciences Real Estate Transactions Since the Fall 2018 Edition of Spotlight

Tenant	Transaction Type	Square Footage	City	Space Use
Globe Scientific Inc.	Relocation	121,000	Mahwah	Industrial
Hikma Pharmacueticals	Expansion	26,844	Eatontown	Flex
Leo Pharma	Expansion	34,000	Madison	Office
Merck	Sale-leaseback	223,357	Whitehouse Station	Office
RK Pharma Solutions	Relocation	82,975	Pearl River, NY	Flex

Key Real Estate Statistics

AYNJ's Life Sciences Specialty Practice Group maintains an ongoing, dynamic database of lab, R&D and manufacturing real estate, either in use by, or suitable for, life sciences industry tenants. Our current inventory consists of 106 properties, with key metrics as follows:



The inventory totals

9.3 million square feet
of life sciences space



This includes **2.8 million square feet**of available space for an availability rate of **30.5%**



The average asking rent for this available space is \$17.51 NNN per square foot



The maximum amount of contiguous space available is **198,167 square feet**



Other Newsworthy Events

■ NJ Ignite Program-11 Workspaces Selected**

- As part of the NJ Ignite program, the NJEDA, in conjunction with the Governor's office, selected eleven workspaces where life sciences start-up companies can receive assistance with rents. These incubator spaces include:
 - **Building 78** at the 2-million-square-foot Kearny Point in Kearny
 - The **CoLabs** collaborative workspace at Bell Works in Holmdel
 - Cowerks in Asbury Park
 - North Brunswick-based Commercialization Center for Innovation Technologies
 - The 108,000-square-foot **Enterprise Development Center**, based out of the New Jersey Institute of Technology
 - The **Rutgers EcoComplex** in Bordentown
 - Rutgers Food Innovation Centers in Bridgeton and Piscataway
 - South Jersey Technology Park, adjacent to Rowan University in Mullica Hill
 - 1776 in the Cherry Hill Mall
 - **PrimeWork** in the Somerset Section of Franklin
 - **Incutate** in Mantua Township

"Fostering an environment where young, innovative businesses are able to thrive is core to Gov. Murphy's vision of making New Jersey into the state of innovation," EDA CEO Tim Sullivan said. "NJ Ignite is the latest in the NJEDA's growing list of resources designed to support New Jersey companies throughout their lifecycles."

**NJBiz; re-nj.com

Governor Murphy Names Members of the Commission on Science, Innovation and Technology***

- The Governor announced eight choices for the 17-member Commission on Science, Innovation and Technology, the advisory board that was re-established in mid-2018 to stimulate the growth of New Jersey's innovation economy. The Governor's selections included:
 - Beth Noveck, the state's first chief innovation officer
 - Robert Barchi, president of Rutgers University
 - Debra Hart, president and CEO of BioNJ
 - Joel Bloom, president of the New Jersey Institute of Technology.
 - Gunjan Doshi, CEO of InRhythm
 - Charlene Brown-Smith of Franklin Township
 - David Pascrell, of Gibbons PC
 - Nariman Farvardin, president of Stevens Institute of Technology

The senate president and assembly speaker will each appoint two members, as well as two non-voting members from the public, while the secretary of higher education, executive director of the Economic Development Authority and commissioner of education will serve as ex-officio members on the commission.

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About Avison Young's Life Sciences Specialty Practice Group

AY's Life Sciences Specialty Practice Group provides multi-disciplined expertise aligning business goals with real estate solutions while addressing complex technical challenges. Real estate requirements for life sciences companies are technically complex, capital intense and atypical for real estate service providers whose principal focus is office or warehouse space. Time to market and funding are the crucial factors driving innovation and successful new pharmaceutical product launches, which in turn, require laboratories, vivaria, pilot plants and manufacturing facilities. Avison Young's Life Sciences Specialty Practice Group brings a diversely credentialed team of real estate professionals who understand the pharmaceutical product life cycle as well as the technical complexities that can create significant budgetary and scheduling risk. AY's Life Sciences team members have successfully addressed these risks that surround real estate decision making throughout all phases of the product life cycle and across all technical aspects of planning, designing, engineering and constructing any type of life sciences space.

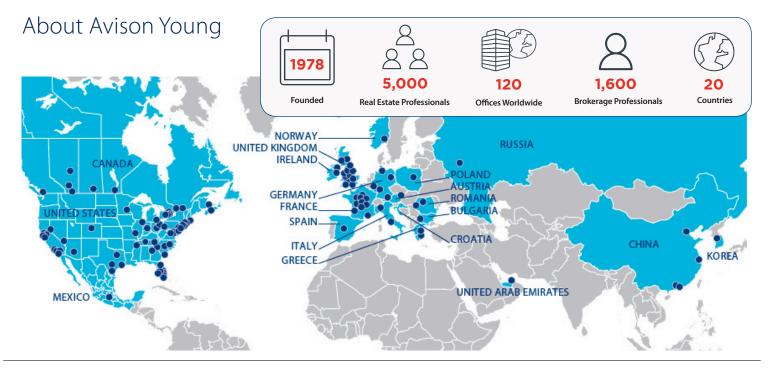
Avison Young's unique approach to the strategic and technical challenges clients face when engaging the real estate process is anchored in the team's individual and collective life sciences experience and broad-based expertise. The centerpiece of this approach is how we integrate our clients' technical and financial requirements into the deal negotiation process, ensuring these requirements are incorporated accurately into the transaction documents. This fully

integrated process enables our team to develop innovative strategies with credible budgets and schedules at early transaction stages, encumbering clients with the facts needed to make more fully informed decisions.

As each transaction evolves, our value engineering and budget monitoring capabilities ensure real estate solutions are planned and designed with requisite scalability, and are completed under-budget and onschedule, thereby optimizing the clients' real estate assets. This fully transparent, risk averse, "cradle to grave" model creates seamless continuity and allows complete flexibility, maximizing the efficacy of each client's internal resources on either a portfolio or transactional basis.

Services include:

- Strategic Real Estate Planning
- Site Selection
- Pre-Lease Budgeting and Scheduling
- Lease Negotiation
- Site Evaluation Due Diligence Oversight
- Consultant Team Selection, Engagement and Oversight
- Post-Lease Project Management
- Construction Management



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