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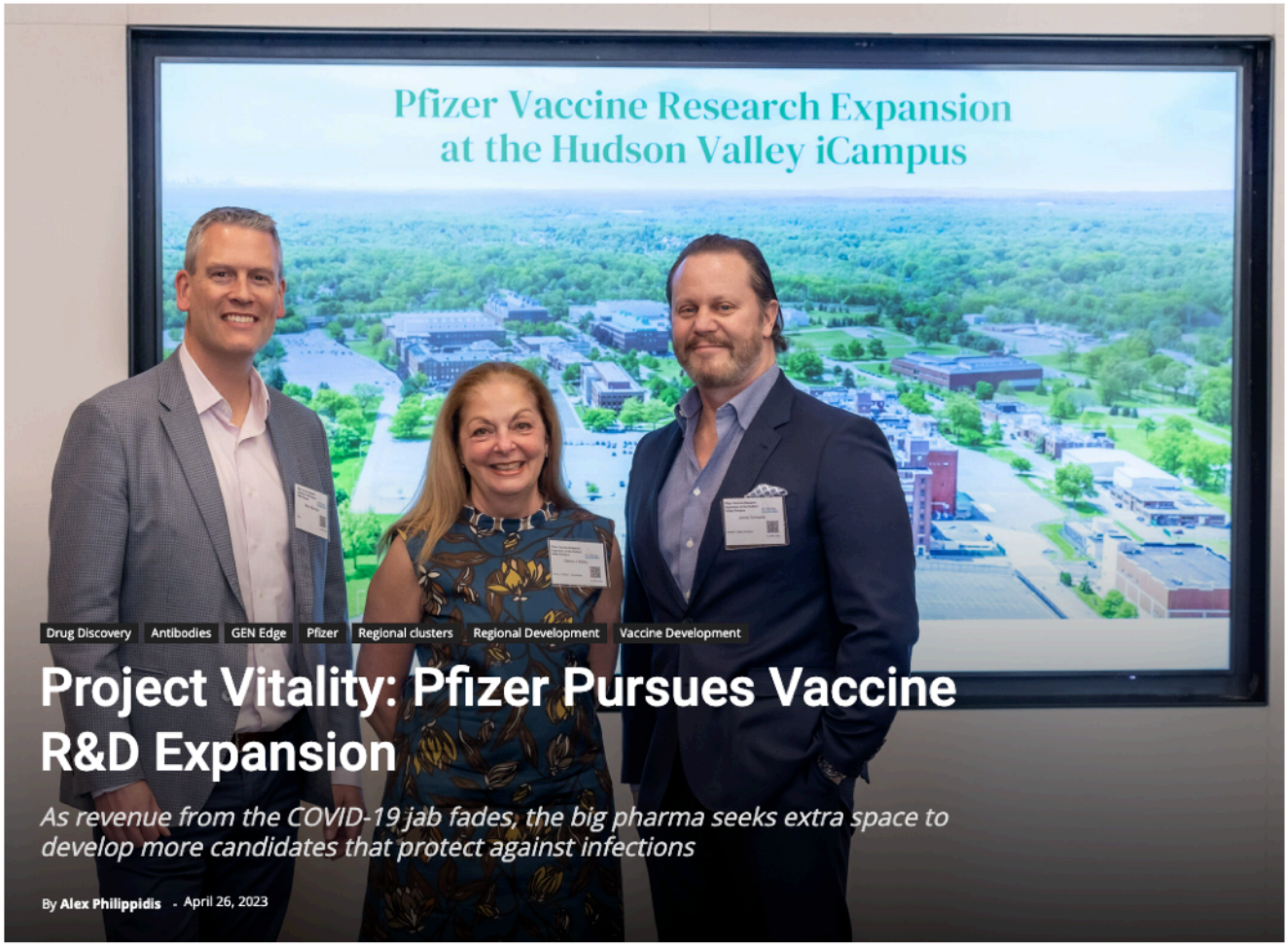


*[L.-R.] Steve Bjornson, Pfizer's Vice President and Chief Operating Officer, Vaccine Research and Development; Nancy J. Kelley of Builds Bio+; Jamie Schwartz, President of Hudson Valley iCampus. [Builds Bio+]*

From the first drug ever approved by the FDA to the first COVID-19 vaccine, a lot of biopharma history has happened some 25 miles northwest of New York City, at a one-time dairy farm that for more than a century has served as a research site for Pfizer and several predecessor companies.

With future plans that include more vaccines like the ones it has co-developed with BioNTech for COVID, Pfizer is planning a $470-million expansion of its Vaccine Research and Development facilities in Pearl River, NY, that it hopes to start work on next year. Pfizer aims to build 260,000 new square feet of space, including 55,000 square feet of new labs.

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Pfizer's expansion plan—which the company has dubbed "Project Vitality"—would allow the pharma giant to expand the site's current workforce of more than 1,200 people (another 50 positions are open), by creating lab and office capacity for up to 370 additional staffers for future growth, and thus expand vaccine R&D operations that grew dramatically during the pandemic.

The pharma giant still plans on growing those operations as it builds up its vaccine pipeline but wishes to do so more efficiently than it can within its combination of owned buildings and space it leases at an adjacent mixed-use campus it once owned.

"We've been on a very rapid expansion over the last several years. Our expansion happened before we could develop all the space we need," Steve Bjornson, Pfizer's vice president and chief operating officer, vaccine research and development, told *GEN Edge*.

"The space is going to allow us to catch up, accommodate many of the new staffers who are now in leased buildings and leased spaces, bringing more of them into our core campus, and also have the opportunity for us to grow over time."

Pfizer's main lab building would see new entrances for staffers and visitors. Pfizer wanted "a way that all our colleagues can enter the site and feel like they're walking into a place they're proud to work in," Bjornson said. Other amenities for the expanded campus would include new indoor and outdoor gathering spaces, parking, a new fitness center, and a central café that would replace kiosks now scattered in several of Pfizer's buildings.

"For the team that delivered the COVID-19 vaccine, they deserve better than that. They deserve the best," Bjornson said. "We want to give them an amenity space that not only are they coming to work because of all the science that we do, but because it's just an amazing place to be."

As for the Vitality name, Bjornson explained, "it really resonated across the team as far as what we were trying to accomplish: It blended not only the energy of what we were bringing to the challenge of creating this new work environment space, but also it resonated with our purpose and our mission of delivering life-saving vaccines."

**A shot in the arm**

Driving Pfizer's planned expansion is a desire to deliver a proverbial shot in the arm to its vaccine development effort as the explosive revenue growth generated by the COVID-19 vaccines it has co-developed with BioNTech fades.

Pfizer earned $37.8 billion in COVID-19 vaccine sales last year. While those revenues rose about three percent from $36.78 billion in 2021, the company has guided investors to expect only about ~$13.5 billion this year—64% less than 2022—as government contracts give way to commercial sales. Pfizer expects to charge a private market price ranging from $110–130 a dose (the same range as rival Moderna's vaccine).

*Steve Bjornson, Pfizer's vice president and chief operating officer, Vaccine Research and Development, discusses Pfizer's expansion plans in Pearl River, NY, at a recent event held by Builds Bio+, which advances life sciences in the New York and Philadelphia regions.*

"If anything, the pandemic showed us what an amazing crown jewel we had in Pearl River, and we don't need to go anywhere else to be successful," Bjornson told an audience of biopharma executives, business professionals and others at a recent event held by Builds Bio+, which advances life sciences development in the New York and Philadelphia regions, at Innolabs in Long Island City, NY. "It gave confidence for the company—not just for those of us in R&D but the whole company—that this is an environment that we can invest in and be successful in."

Suburban campuses as well as downtown buildings—many transformed from office or other commercial use—have helped the New York metro area grow into a vibrant regional cluster for biotech and other life sciences, said Nancy J. Kelley, a founding member of Builds Bio+, which recently expanded its focus beyond New York City.

Bjornson said Pfizer's decision to stay in Pearl River came down to people and money. "We didn't want to lose the talent base that we currently have. So, that kind of limited the scope when we defined a region that we could work within. And it gravitated towards New York City," Bjornson said. "We were thinking, could we get closer to New York City to access additional talent?"

Pfizer concluded it could not do so without shelling out more capital than it wanted to spend.

"When we started getting estimates of what the cost of building or accessing a size space that would be appropriate for our needs, it dwarfed the investment that we would need to make in Pearl River to achieve the same outcome. So, cost was definitely a factor," Bjornson explained. "Moving the campus would have risked the loss of all that talent and we didn't want to risk that."

The company turns over four to five percent of its Pearl River staff each year, adding to Pfizer's challenge of attracting researchers and other employees to the site in suburban Rockland County, about an hour's drive north of Times Square.

"Looking at Boston or California, where a lot of the scientific talent is embedded, we have a marketing challenge in our area to attract talent. But once we do, we find that our attrition is lower," Bjornson observed. "We don't have the revolving door that we experience up in Cambridge in our vaccine organization, because people come, they move, and they really like the neighborhood. They like the environment that they can create for themselves. I think the ability to retain talent is very good. Attracting talent is where we put a lot of our effort."

**Growing vaccine pipeline**

Bjornson said the falloff in COVID-19 vaccine revenues will not slow down Pfizer's expansion plans for Pearl River, since the company is stepping up vaccine development efforts. Pfizer's vaccines are designed to protect against childhood, adolescent, and adult infections—including meningococcal disease, influenza, Lyme disease, respiratory syncytial virus (RSV), and *Clostridioides* (*C*) *difficile*.

According to its most recently published pipeline (https://cdn.pfizer.com/pfizercom/product-pipeline/Pipeline_Update_31JAN2023.pdf?Y9dll8b2GbzLJ_q0NsCadkr_zh15l3or)

on January 31, Pfizer has 11 vaccines in registration phase—eight of them messenger RNA (mRNA)-based jabs targeting COVID-19 and partnered with BioNTech.

Also in Pfizer's vaccine pipeline are eight clinical candidates, four of them in Phase III:

- **RSVpreF (PF-06928316)**, a vaccine designed to protect pregnant women against RSV in their infants from birth through 6 months. The FDA is expected to decide on Pfizer's biologics license application (BLA) for the vaccine in August. The agency has granted RSVpreF its Breakthrough Therapy and Priority Review designations.
- **PF-07252220 (formerly qIRV**), a quadrivalent modified RNA (modRNA) influenza vaccine for adults. The vaccine, being co-developed with BioNTech, is now under study in a trial (NCT05540522 (https://www.clinicaltrials.gov/ct2/show/NCT05540522)) that has enrolled more than 36,000 participants and whose estimated primary completion date is in August.
- **PF-06425090**, a vaccine designed to protect against primary C difficile infection, and which has gained FDA Fast Track status.
- **PF-07307405**, a Lyme disease vaccine that also has FDA Fast Track status.

Pfizer's Phase II vaccines include **PF-06842433**, a complementary 7-valent pneumococcal conjugate vaccine designed to protect against invasive and non-invasive pneumococcal infections in infants and children; and **GBS6 (PF-06760805)**, a hexavalent (6-valent) anti-capsular polysaccharide (CPS) / cross reactive material 197 glycoconjugate vaccine for mothers, designed to prevent invasive Group B *Streptococcus* (GBS) in their newborns.

Two other Pfizer vaccine candidates are in Phase I: **PF-07845104**, a self-amplifying mRNA (saRNA) vaccine designed to prevent influenza in adults; and **PF-07926307**, which is designed to protect against both COVID-19 and flu by combining PF-07252220 with BioNTech's authorized Omicron-adapted bivalent COVID-19 BNT162b2 (Original/Omicron BA.4/BA.5) vaccine.

"We've never had as robust a vaccine portfolio and R&D as we have today, and that's driven by investment in Pfizer in our area. They see the opportunity to have a massive impact on public health—that's what Pfizer wants to do," Bjornson said.

"We're moving in a variety of ways to advance science in so many different fields. There has just never been a better time to be within Pfizer Vaccines."

Though the expansion project, Pfizer plans to enhance businesses operations now within its current owned space and consolidate there at least some of the operations now housed in about 140,000 square feet of leased space on an adjacent campus it once owned.

**From dairy to drugs**

In Pearl River, Pfizer owns about 550,000 square feet on 23 acres carved out of a campus created in 1907 by Ernst Lederle (1865–1921). The one-time New York City health commissioner turned drug development pioneer transformed a dairy farm into a campus for discovering and manufacturing treatments, starting with a diptheria antitoxin that was the first product to win approval from the agency now known as the FDA.

Through a series of acquisitions, Lederle Labs gave way to American Cyanamid, which was bought for $9.7 billion by American Home Products in 1994. Eight years later, that company renamed itself Wyeth, derived from its Wyeth-Ayerst prescription drugs and vaccines business, to emphasize its narrower focus on prescription drugs.

Pfizer acquired in 2009 for $68 billion (https://www.genengnews.com/topics/drug-discovery/pfizer-to-pony-up-68b-for-wyeth/), and based as many as 4,000 people in Pearl River before eliminating its consumer health production and later its vaccine production operations, shrinking its workforce to about 700 by 2016.

A year earlier, Pfizer sold most of its campus for $40 million to current owner Industrial Realty Group (IRG). Los Angeles-based IRG operates over 150 industrial and other commercial properties in 31 states with over 100 million square feet of rentable space. IRG converted the 207 acres it bought from Pfizer into a 25-building industrial/commercial site briefly called New York Center for Innovation, and since rebranded as Hudson Valley iCampus.

"Pfizer's vote of confidence, their thumbs up, their decision to expand on the campus is huge. It sends the signal that this is a good place to do business," Jamie Schwartz, President of Hudson Valley iCampus, told *GEN Edge*. "We're here to help Pfizer, be a good neighbor and be collaborative with them."

iCampus consists of about two million square feet that is 43% occupied by 23 tenants including Pfizer, with more than 20 of the buildings vacant and available for lease.

**Regional magnet**

In addition to Pfizer, which earlier this year inked a lease for 86,000 square feet, iCampus has become a regional magnet attracting more than a half-dozen other life sciences tenant businesses, including:

- **Sanofi**, which occupies 83,000 square feet of manufacturing space in two buildings it inherited when it acquired Protein Sciences in 2017 (https://www.genengnews.com/topics/drug-discovery/sanofi-to-buy-insect-cell-vaccines-company-protein-sciences-for-up-to-750m/)for up to $750 million.
- **Auro Vaccines**, a wholly-owned subsidiary of Aurobindo Pharma USA, the U.S. subsidiary of Indian-based Aurobindo Pharma. Earlier this year, iCampus announced Auro as having renewed its lease for 17,500 square feet of laboratory space. Auro designs and develops preventive and therapeutic vaccines for infectious diseases.
- **C16 Biosciences,** which produces a biomanufactured alternative to palm oil (https://www.genengnews.com/industry-news/c16-biosciences-gears-up-to-go-palmless/) called Palmless, among other next-generation fats and oils.
- **NuBiyota,** a microbiome therapeutics developer that operates a Good Manufacturing Practices (GMP) manufacturing site on the campus. The company focuses on the development of novel microbiota-based drugs designed to restore gut equilibrium.
- **Pearl River Laboratories (PRL)**, which provides GMP analytical services and process development services for conjugated biologics.
- **Profectus BioSciences**, a developer of vaccines for viral diseases and malaria which moved into the campus in 2018, agreeing to lease 9,455 square feet.
- **RK Pharma**, a developer and manufacturer of generic pharmaceutical products worldwide, which. In 2021, RK signed a long-term lease for 83,000 square feet in Building 215 and its annex, where it manufactures active pharmaceutical ingredients (APIs) and other products.

Beyond life sciences, iCampus is home to Momentive Performance Materials, a global maker of global high-performance silicones and specialties; Olaplex, a maker of hair repair treatments; and Pearl River Studios, where scenes have been filmed

for shows ranging from *Blacklist* (NBC) to *FBI-Most Wanted* (CBS) to *Punisher* and *Orange Is the New Black* (both Netflix).

iCampus selling points include the ability to accommodate life sciences as well as vivarium, manufacturing, distribution, warehouse, data center, and office uses; about 30 acres of available land for development; a central utility plant serving all its buildings; as well as proximity to Interstates 87 (New York State Thruway) and 287, the Garden State and Palisades Interstate parkways, Routes 303/304 and 59, and the Nanuet and Pearl River commuter rail stations serving Metro-North Railroad and New Jersey Transit trains on the Pascack Valley Line.

Another advantage for iCampus, Schwartz said, is its proximity to New York City and northern New Jersey—the two anchors of the regional biotech cluster ranked No. 3 by *GEN* last year (https://www.genengnews.com/topics/drug-discovery/top-10-u-s-biopharma-clusters-9/).

Over time, iCampus plans to add amenities that would benefit Pfizer and other tenants, including the conversion of an existing building into a hotel—to be followed by a broader mix of uses that would include retail, office, industrial, and residential components.

"We want to make it a work-live-play destination, so the young scientists can afford to live in Rockland, to rent or buy," Schwartz said.