Lab space is in demand as biotech research hits its stride

Life sciences research is ramping up at warp speed, driven largely by advancements in DNA sequencing and synthesis and a resulting explosion in the number of biotech businesses.

According to Entrepreneur magazine, the life sciences sector reported a record $70 billion in public and private capital investment in 2020, a 93 percent increase from 2018 numbers.

The spike in research activity means increasing—and often unmet—demand for lab space and equipment nationwide.

In Indiana, nonprofit consortiums are stepping up to offer space and facilities that have become hard to find in the commercial market.

Among them is the Indiana Center for Biomedical Innovation, a life sciences incubator created in 2016 as a partnership between the Indiana University School of Medicine, the Indiana Clinical and Translational Sciences Institute and IU Health, the state's largest health care system.

The ICBI offers approximately 15,000 square feet of private wet lab space, private offices, and conference rooms. It also provides specialized lab equipment that can be shared among the 11 companies now operating at the facility, which is in repurposed space within IU Health Methodist Hospital in downtown Indianapolis.

"The ICBI fosters a vibrant entrepreneurial ecosystem that supports the translation of life science research and discoveries into commercial startup opportunities," said Aaron Vigil-Martinez, director of the ICBI. "Thanks to our partners at IU Health and the IU School of Medicine, the ICBI is uniquely positioned to fill a critical gap within the ecosystem by providing a comprehensive life science incubation platform."

Not far from ICBI's incubator is the Indiana Biosciences Research Institute, a consortium of life sciences companies, academic research institutions, the Indianapolis philanthropic community and the IU School of Medicine.

IBRI is the anchor tenant in Innovation Building 1 in the 16 Tech Innovation District, where it offers 68,000 square feet of lab, office, and event space, four main open-space labs, and 200 lab benches.

It houses 13 life sciences startups, whose researchers have access to Machyne, a makerspace with workshops, design spaces and a media lab; and 76 Forward, a global incubation network.

In Fort Wayne, the Mirro Center for Research and Innovation, part of Parkview Health, offers a variety of services to life sciences entrepreneurs.

Its Health Services and Informatics Research division is available to partner with outside researchers on traditional research studies, pilot studies, program evaluation, and user experience research.

The Mirro Center's Simulation Lab features advanced medical simulation technology, including surgical simulations and advanced virtual reality systems.•

❱ **SUPPLY CHAIN** cont. from previous page

Boston, the Indiana EZ-Fill® hub, and its device manufacturing facility in California."

Giant packaging and logistics firms aren't the only ones jumping into cold-chain logistics.

ArcticRx

ArcticRx, an Anderson startup now located in the Indiana IoT Lab in Fishers, started as a response to gaps in cold-chain storage exposed by the COVID-19 pandemic.

Engineers from Rolls-Royce and ChefsFridge, an Anderson food technology company, collaborated on the creation of an ultra-low-temperature pod that can keep vaccines, medically tailored meals and other materials cold for 21 days without batteries or electricity.

"There was a lot of waste in the shipping of COVID vaccines," said Lindsey Barton, a spokesperson for ArcticRx. That prompted the founders of ArcticRx to invent a way to get vaccines to places that are remote or don't have access to refrigeration.

ArcticRx has prototyped several models of its shipping pod, which is lightweight and about the size of a dishwasher. Barton said the company has identified a manufacturer for the product and is in negotiations with Eskenazi Health in Indianapolis to do statewide field testing.

In 2023, ArcticRx is opening a new fundraising round as it works to provide important food and medical shipments to underserved areas around the world.

Sony DADC

The growing need for life sciences manufacturing and logistics space is seen by one technology company as an opportunity to repurpose a facility where it made optical discs for 35 years.

Heather Strohm, new business development manager for Sony DADC, said the company's 110,000-square-foot facility in Terre Haute, about an hour southwest of Indianapolis, is equipped with clean rooms, an automated inventory control system, and other assets of value to life sciences firms.

One life sciences project has already happened there. Sony DADC partnered with Purdue University to conduct research and development on a project to improve diagnostics technology using micro-vesicle categorization and flow cytometry.

The facility's central location an hour from Indianapolis and near Chicago, St. Louis, Cincinnati, and Louisville, served Sony well, said Strohm, and adds to its potential appeal to companies involved in life sciences research, manufacturing, and distribution.•