

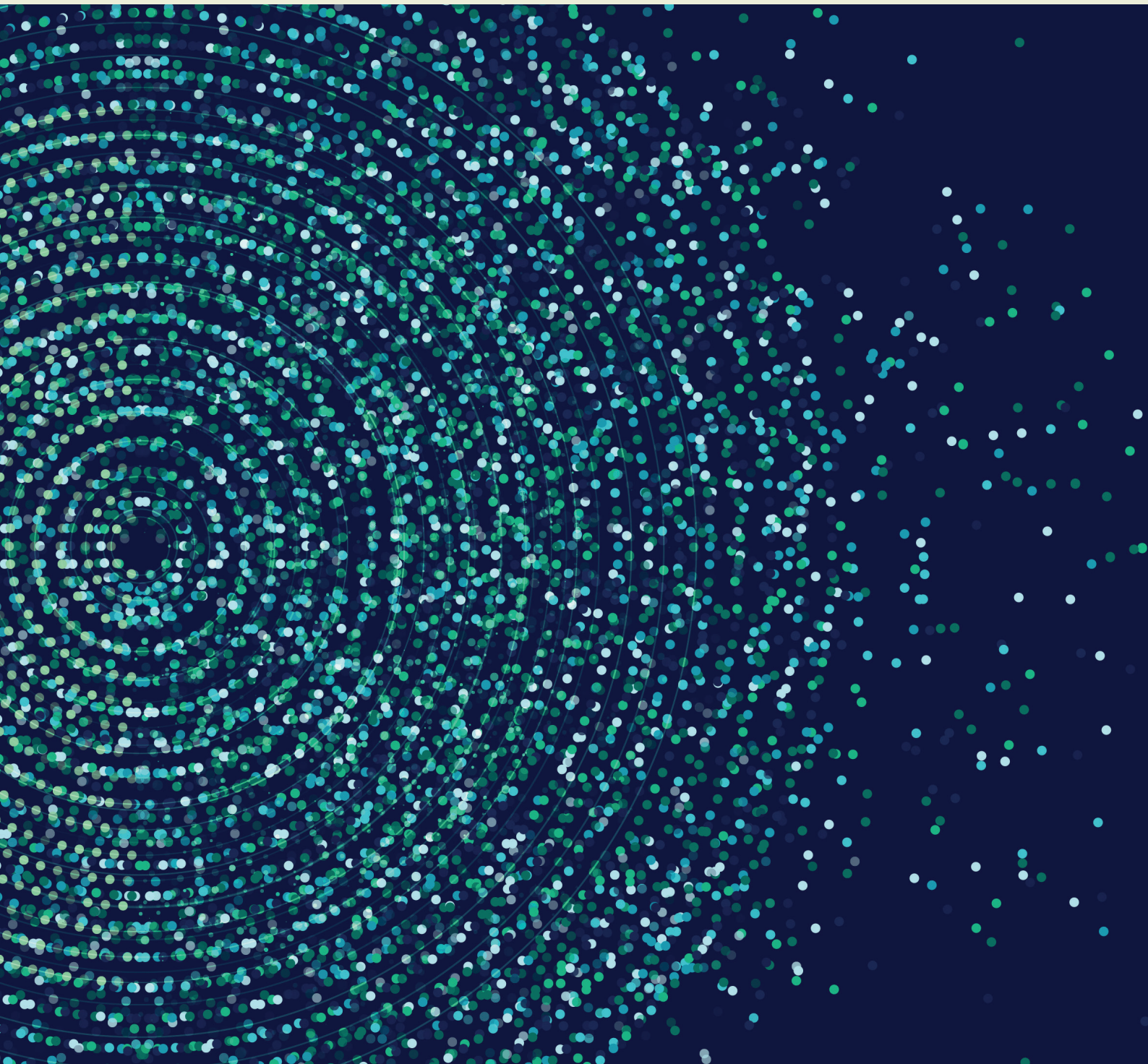
Insight Paper 3:

Spaces for the Biotech Century

2025

Advances in biotechnology are reshaping real estate, from flexible and technology enabled labs and offices to longevity clinics and data driven hospitals, and the integration of manufacturing, clinical and research functions within single sites.

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Spaces for the Biotech Century

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World health challenges



10m people die from cancer each year

(Source: WHO)



Globally, dementia cases are estimated to triple by 2050, reaching 153m people

(Source: Alzheimer's Disease International)



Worldwide adult obesity has more than doubled since 1990, and adolescent obesity has quadrupled

(Source: WHO)

***Biotech definition-** using biological science and living systems to develop new products*

In an era marked by converging health crises, from age-related conditions such as dementia to rising chronic and lifestyle-driven diseases like obesity, healthcare systems are under mounting pressure. In response, the world is turning to biotechnology, which is delivering a wave of innovations. Indeed, McKinsey estimates that 45% of the worldwide disease burden could be addressed via biotech. These advances are transforming healthcare and reshaping real estate, from laboratory infrastructure to the design and use of healthcare assets.

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BREAKTHROUGH BIOTECH

Biotechnology is advancing on multiple fronts. In obesity, injectable GLP-1 therapies have redefined what is medically achievable, opening a \$24 billion global market in 2023 alone. Forecasts suggest this could surpass \$100 billion by 2028¹. Medical advances are accelerating the fight against cancer. These include personalised cancer vaccines, a five-minute injection instead of the longer time to have the same drug via an intravenous infusion and early-stage diagnostics. Over \$8 billion was invested in longevity biotech in 2024². Microbiome science, once fringe, is a \$350 million market projected to exceed \$2 billion by 2030³. Healthcare is shifting "upstream" from reacting to preventing disease. New

AI-enabled diagnostics and genomics data let clinicians and patients spot risks and take preventative action earlier. Preventative care was at the forefront of the recently launched UK ten-year NHS plan⁴. Advanced therapies have entered a period of recalibration following an initial wave of heightened expectations. Nevertheless, after decades of promise, modalities such as gene therapy, cell therapy and mRNA vaccines are now delivering measurable impact in real-world clinical and commercial settings.

The result is a rapidly diversifying ecosystem: personalised and preventative medicine, AI-enabled diagnostics, longevity, advanced therapies, and microbiome engineering are all advancing in parallel.

“Flexibility is crucial. As biotech evolves, so must real estate. Designs must allow reconfiguration without compromising safety.”

REAL ESTATE IMPACT

What all this means for real estate is straightforward in its direction but complex in its form. The most immediate and noticeable impact is a requirement for *lab space*.

Designing lab environments for biotech companies goes far beyond standard office specifications.

The next wave of innovation



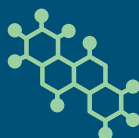
GLP-1

A hormone that regulates blood sugar and appetite



MICROBIOMES

Study of the millions of microbes living in and on the human body



ADVANCED THERAPIES

Treatments that aim to treat or cure diseases at the molecular or cellular level



LONGEVITY

A science that seeks to extend healthy human lifespan by targeting the biological processes of ageing



PREVENTATIVE & PERSONALISED MEDICINE

Focused on addressing and detecting health risks early to prevent disease before it develops

¹<https://www.iqvia.com/locations/emea/blogs/2024/10/2024-the-obesity-markets-inflection-point>

²<https://www.globalwellnesssummit.com/blog/longevity-investment-more-than-doubled-to-8-5bn-in-2024/>

³<https://www.grandviewresearch.com/press-release/global-microbiome-analysis-market>

⁴<https://www.england.nhs.uk/long-term-plan/>

“Biotechnology’s rapid evolution is not only reshaping how we treat disease but also where we do it. As therapies become more personalised, preventative, and data-driven, the buildings that support them must follow suit.”

Requirements include generous slab-to-slab heights (4.5 to 5.5 metres), air exchange rates of 6 to 20 times per hour, significantly higher power and cooling loads, and strict vibration controls. Structural loads must support heavy equipment, and specialised systems for chemical-resistant drainage and hazardous waste are essential. Labs can also require fume cupboards, autoclaves, back-up power options, gas storage facilities and adaptable layouts.

Flexibility is crucial. As biotech evolves, so must real estate. Designs must allow reconfiguration without compromising safety. Location matters, too. Not every site is suited to biotech. Typical requirements include proximity to talent, transport infrastructure, academic and research institutions, hospitals, adequate energy and water supply, and affordable housing.

Because most biotech firms are early-stage enterprises with higher risk profiles, they also need flexible leases and operational support beyond physical space. Increasingly, lab developments are designed to attract and retain scientific talent through generous amenity provision, wellness-focused design, and inclusive, collaborative spaces.

Large floorplates, ideally 25,000 sq ft or more, promote proximity between zones. At the same time, integrated layouts that place write-up space adjacent to wet or dry labs improve efficiency. Equipment rooms should be close to lab areas for safe material transfer, and plant rooms should be strategically located to minimise pipe runs and reduce disruption during maintenance.

As the needs of biotech firms change, in the UK there is a growing demand for tech boxes or mid-tech real estate. These flexible facilities offer the unique combination of lab, light industrial, and office space.

As treatments progress towards commercialisation, biotech companies also need access to GMP-compliant manufacturing space.

As with AI drug discovery firms, the future is hybrid: biology meets data. This is driving demand for lab/office space that supports both.

But beyond labs, new sub-sectors are reshaping the real estate landscape.

Take longevity. Clinics offering high-end diagnostics, biomarker screening, and regenerative treatments are proliferating. There are now more than 800 longevity clinics in the US, over 40 in Switzerland, and 25 in the UK⁵. Some charge five-figure annual fees. Others are integrated into national healthcare systems, as in Singapore. In 2023, the National University Health System in Singapore and Alexandra Hospital launched a longevity clinic to increase Singaporeans' health span by three years in the next ten years. If longevity enters the mainstream, it could delay the point at which people need care home facilities and reduce long-term dependency. People could reach their 80s or 90s but be in the health equivalent of their 60s or 70s.

Preventive healthcare is another frontier. As systems shift focus from intervention to early detection, real estate is following suit with healthcare provision becoming more decentralised and administered away from hospital campuses. In

Denmark, healthcare delivery has been deliberately shifted away from large hospitals toward community-based municipal health centres and clinics, particularly for chronic disease management, prevention, and rehabilitation. Meanwhile, at-home diagnostics, wearables, and remote monitoring enable a new form of ambient healthcare. They are also collecting valuable healthcare data, which can be used to identify healthcare needs earlier. Hospitals, in turn, will focus more on acute and complex care, incorporating multi-use wellness spaces, education rooms for lifestyle coaching, and tech-enabled environments where clinicians work with AI and large datasets.

However, one of the most transformative shifts is the convergence of clinic, lab, and manufacturing in one footprint. Advanced therapies such as CAR-T, mRNA vaccines, and gene therapies are often bespoke, fragile, and time-sensitive. Some must be manufactured near the patient. Regulators have noticed. The UK's MHRA recently published new guidance to facilitate the decentralised production of cell therapies in hospitals. Sites like Guy's and St Thomas' in London and Cambridge Biomedical Campus are already co-locating clinical and manufacturing space. Hospitals using advanced therapies may need to be retrofitted or co-located with small-scale GMP cleanrooms and controlled access labs with secure handoff areas for chain-of-custody compliance.

CONCLUSION

Biotechnology’s rapid evolution is not only reshaping how we treat disease but also where we do it. As therapies become more personalised, preventative, and data-driven, the buildings that support them must follow suit.

⁵ <https://longevitymedsummit.com/web-wellness-real-estate-clinics-meeting/>

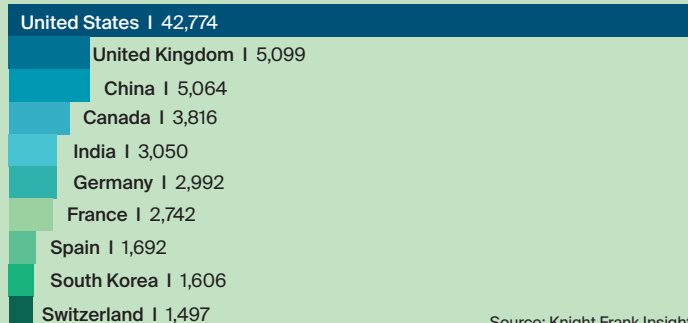
Benchmarking the World's Leading Biotech Clusters

The world's leading biotech clusters emerge from a powerful interplay of research strength, access to capital, skilled talent, commercial capability, and industry density. Tracking indicators across these dimensions enables the identification and benchmarking of ecosystems driving global biotech leadership. Crucially, clusters that perform strongly in both research excellence and commercialisation capacity signal the presence of more advanced, integrated innovation ecosystems.



Existing ecosystem

Top 10 Countries by number of HQ'd biotech companies

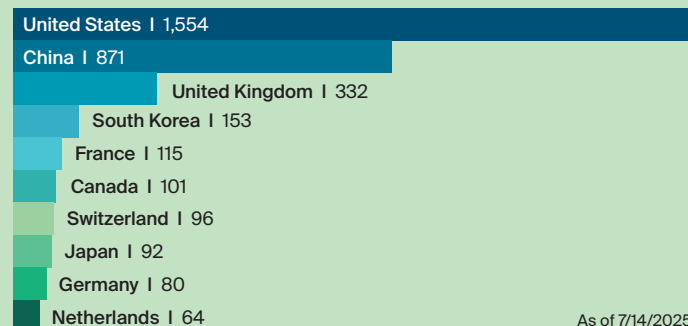


Source: Knight Frank Insight



Funding environment

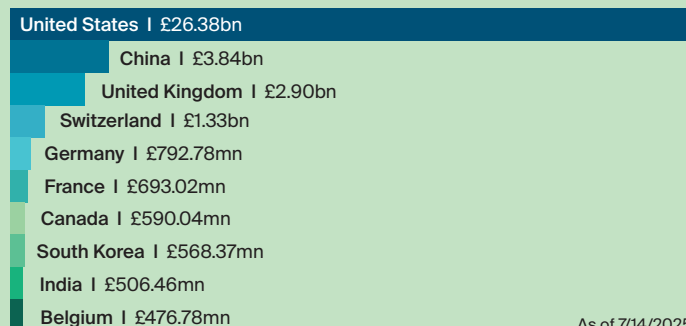
Top 10 Countries in 2024 Biotech VC funding by deal count



As of 7/14/2025

Source: Knight Frank Insight and PitchBook.

Top 10 Countries in 2024 Biotech VC funding by capital invested



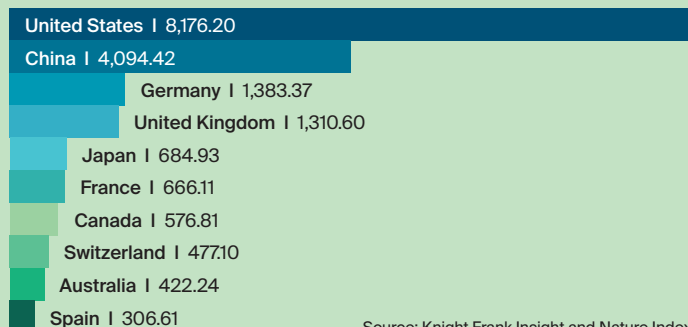
As of 7/14/2025

Source: Knight Frank Insight and PitchBook.



Research strength

Top 10 countries for research output – biological sciences by share



Source: Knight Frank Insight and Nature Index

Top 10 countries by number of universities in the QS top 100 world rankings – biological sciences



Source: Knight Frank Insight and QS rankings

The Nature Index tracks high-quality research outputs by counting article publications in a curated selection of leading natural science journals, attributing fractional and whole counts to institutions and countries based on author affiliations.

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We like questions. If you've got one about our research, or would like some property advice, we would love to hear from you.



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