Life Sciences: What’s next?

Emerging UK specialisations 2022
Beauhurst identifies ambitious businesses using eight triggers (outlined at the bottom of this page) that we believe suggests a company has high-growth potential. More detail on Beauhurst’s tracking triggers is available via our website.

**Equity investment**
To be included in our analysis, any investment must be:
- Some form of equity investment
- Secured by a non-listed UK company
- Issued between 1 January 2012 and 31 December 2021

**Announced and unannounced fundraisings**
An unannounced fundraising is an investment made into a private company that is completed without press coverage or a statement from the recipient company or funds that made the investment. These transactions are an integral part of the UK’s high-growth economy, accounting for around 70% of all equity transactions.
The last two years have shone a spotlight on the strength and depth of the UK’s science market and this data analysis by Beauhurst highlights just a few of the many sub-sectors of the science sector that will drive the real estate markets in the UK. While COVID-19 has undoubtedly played a role, there are longer-term structural factors underpinning the sector such as an ageing population, the accelerating pace of scientific discovery and emerging areas of medicine.

2021 saw science real estate make big strides forward, with new markets emerging, occupier demand growing and landlords starting to take a much more innovative approach to delivering the right types of space. We have seen enormous appetite from real estate investors, with an estimated £12b of live capital chasing UK science-led opportunities.

In London, availability within the existing science clusters is hampered by site constraints and competition from more established uses. Consequently, this will see the emergence of new locations like East London and Southbank. There will undoubtedly be winners and losers as more supply is delivered and markets mature. Crucially, it’s not just about location, it’s about creating the appropriate ecosystem.

The number of venture capital backed science companies progressing beyond seed funding has increased 300% over the last five years, fuelled by growth sectors such as AI, personalised medicines, microbiome therapies, genomics and vaccine technology.

We are already seeing occupier demand ramping up in 2022, with 800,000 sq ft of live requirements focused on London, with a large proportion of these from early-stage companies. This suggests demand in the medium-term will increase significantly as big pharma and service providers relocate to capitalise on proximity to new and expanding companies.

In mature markets such as Oxford and Cambridge, there is record demand with some occupiers struggling to secure space. We will also see growing demand for manufacturing space in out-of-town locations, as more companies look to commercialise their products.

This growing demand will lead to a greater amount of speculative development of R&D space, with schemes getting underway across the UK. In turn this will mean the emergence of lab rental premiums.

We are just starting to see the very first transactions on pre-built incubator and grow-on lab space in London, outside of an academic facility, showing premiums over office space of up to 70%. As more deals are done in 2022, it will provide the evidence to make underwriting lab-enabled schemes much easier.

There is no doubt that London will become a key market for science this year, while Oxford and Cambridge will continue to develop. We will also see the growth of other regional locations such as Birmingham, Manchester, Edinburgh, Glasgow, Bristol, Newcastle and Stevenage, all of which already have many of the elements necessary for a successful science ecosystem. However, as this report shows, there will be many other emergent locations as the science grows.

Ultimately, there is a lot in store for the UK science sector in 2022 (and beyond).
The pandemic has put the UK life sciences in the spotlight thanks to the incredible work done to bring the Oxford-AstraZeneca vaccine to the world. Of course, the life sciences sector is not just vaccine development. It is comprised of a vast range of companies that research, develop, and commercialise cutting-edge products and services in the healthcare and biotech sectors. While the pandemic has brought many of the more established companies in innovating in this area to the fore, this report is focused on the emerging companies that are set to be future headline names in the UK and around the world.

Beaushurst tracks over 1,000 ambitious companies in the UK life sciences sector. These are companies that are growing rapidly or have signalled an intent to do so by raising equity investment or licensing intellectual property. Altogether, these companies account for 2.53% of companies in the UK’s broader high-growth ecosystem. Despite being a small proportion of the total ecosystem, these companies punch above their weight in their ability to secure equity investment; high-growth life science firms raised £10.7b or 9.45% of all equity finance raised between 2012 and 2021. Investment into the sector has grown at a compound annual growth rate of 36.6% over the decade; a testament to investor appetite for the sector that shows little sign of waning.

I want to thank the amazing team at Savills for helping us to shine a light on some of the most exciting areas in UK life sciences. I’m looking forward to the companies and technologies featured in the report making headlines over the next few years.
In the UK there are 1,010 high-growth companies working in the life sciences industry, constituting 2.53% of the broader ecosystem. Despite being a small proportion of the high-growth ecosystem, businesses in this sector have outperformed in terms of their ability to secure equity investment. Between 2012 and 2021, life sciences companies raised £10.7b of equity funding, representing 9.45% of all investment during this time frame.

Academic spinouts have high representation in the life sciences industry with 39.7% of all spinouts from UK universities having some operations in the sector. This is unsurprising given the symbiotic relationship between academic research and the life sciences business community, a connection that became increasingly prevalent during the COVID-19 vaccine discovery process.

Life sciences companies have also secured a disproportionate share of grant funding between 2012 and 2021 (5.97%). As life sciences companies are often aiming to produce innovative solutions to health problems, they are naturally well suited to attract grant funding from public bodies supporting these endeavours.
In the life sciences, specifically pharmaceuticals, the costly and time-consuming nature of drug discovery has always posed a core challenge to the growth of companies working in the field, often dissuading potential investors. The emergence of artificial intelligence, and machine learning, in the sector has posed an innovative solution to these issues, using technology to gain unique insights into the field.

One method for using artificial intelligence for drug discovery is through generating and analysing intensely large amounts of outcome data at a rate unachievable in laboratories. Another use of this emerging technology is based on understanding relationships, explicit and implicit, between different biological entities based on information gained from research papers, clinical trials and patient records.

Alongside the positive opportunities available from merging life sciences with artificial intelligence, combining these sectors also brings about the potential for negative outcomes. A recent publication from Nature Machine Intelligence recognised the dual uses of this technology, highlighting how they can be misused to create novel biochemical weapons.

**Company profiles:**

- **Arctoris**
  
  Headquartered in Oxford, and spun out from the University of Oxford in 2016, Arctoris develops a drug discovery programme that automates experiments through the use of robotics. Since launching in 2016, the business has secured £3.84m of equity investment across two fundraising rounds, with the most recent of these valuing the business at £11.2m.

- **AMPLE**
  
  Spun out from Queen's University Belfast in February 2021, AMPLE uses machine learning and bioinformation to discover new antibiotics that are effective against multi-drug resistant pathogens. The company was granted £294k by Innovate UK in September 2021 to support the validation of candidate antimicrobial peptides using AMPLE’s technology. The project aims to resolve Bovine Mastitis — an inflammatory reaction of a cow’s under tissue due to bacterial infection.
What are the most promising emerging areas in life sciences and health and why?

Let’s use the concepts of pre and post-pandemic innovation and the convergence of life sciences, engineering, computing and physical sciences to put a spotlight on the most promising emerging areas. The race for a COVID-19 vaccine has shown the world how platform technologies and tools have enabled biotech and pharma companies to design, develop, and distribute new vaccines, from “lab to jab”, at speed and scale. Post-pandemic, governments and public health organisations are continuing to fund innovation, leveraging the skills, knowledge and infrastructure gained from this pandemic, so that we may be better prepared to tackle the next pandemic, as well as other global health issues such as antimicrobial resistance.

I therefore believe six emerging “techbio” areas are the most promising — molecular diagnostics, next-generation sequencing, synthetic biology, bio-manufacturing, robotic automation and applied AI/ML.

What is an overlooked area in life sciences and health that you think deserves more attention?

On enabling healthier lives, I believe “age tech”, from preventative medicine to healthy ageing, is one overlooked area that deserves more attention, given the association between ageing, sedentary lifestyles and long-term conditions. I anticipate more entrepreneurial and investment activity in this space.

Are there specific challenges that founders of life sciences and health companies face?

The endeavour of turning life sciences into healthcare products and a startup into a scaleup requires different skills, knowledge and mindsets, which may prove challenging for founders who struggle to make the transition.

Beyond strong science and a solid strategy, attracting capital and talent are also key challenges given the capital intensity, regulatory complexity and timeframes often required to bring new products to market.

Founders are encouraged to seek guidance to complement their own skills, knowledge and networks. This is where their investors can also help.

What is most needed to support and grow the contribution of emerging life sciences and health companies to the UK economy?

Firstly, strengthening knowledge clusters — continued funding of STEM excellence, attracting brain power and skilled talent to learn, research and teach at UK universities.

Secondly, fostering innovation and entrepreneurship — incentivising undergraduates and postgraduates and those with academic and industry experience to become entrepreneurs.

Thirdly, building out infrastructure and connectivity — space for experiments, prototyping and manufacturing, as well as access to the NHS and corporates for first users, customers and sales.

Many UK academic institutions are already doing this to build out the UK’s science and technology ecosystems — with organisations such as Oxford Science Enterprises to Cambridge Innovation Capital and more recently Northern Gritstone established to scale up the funding and commercial translation of life sciences and deeptech research at leading universities.

Furthermore, organisations such as the Bioindustry Association and Royal Academy of Engineering have established programmes specifically designed to foster and encourage innovation and entrepreneurship amongst diverse early stage career researchers across life sciences and engineering — leading to a positive impact on the UK economy.

The combination of operational expertise, specialist capital and purpose-built spaces will help the most promising IP-driven startups to scale and grow, advancing new healthcare products and services towards clinical trials and regulatory approval, demonstrating the model of “building to beaker to bedside” to ultimately benefit and improve patient outcomes.

James Wong, Life Sciences Venture Capital Investor

Investor perspective

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Life Sciences Venture Capital Investor

Investor perspective

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Investor perspective
Vaccines

The use of vaccines to protect humans against diseases first emerged in the late 18th century and has evolved into a key aspect of global healthcare. Despite its traditional roots, this branch of pharmaceuticals has benefitted from increased attention during the COVID-19 pandemic, causing emerging technologies in the field to be expedited.

Innovation in the field includes implementing big data to improve the vaccine design process. This is the core mission of Baseimmune, which has created a platform that analyses large quantities of information to generate antigens informed by these findings at an unprecedented rate.

One challenge for vaccine development has been making harmless virus-like particles that can bind with target antigens to evoke a strong antibody response. In aiming to combat this, technology has emerged to facilitate the binding process. One example of this stems from the laboratories of SkyBiotech, a company that has developed a protein superglue that combats many of the issues that emerge in the traditional binding process.

Company profiles:

- ImmBio

Cambridge-based ImmBio aims to develop next-generation vaccines, based on its proprietary bacterial vaccine development platform ImmBioVax. The platform implements a production process that mimics normal immune responses to bacterial pathogens. The company has progressed a vaccine candidate against invasive pneumococcal disease into full clinical development and is in late pre-clinical development stages for vaccines against meningococcal disease and tuberculosis.

- DIOSynVax

The vaccines developed by DIOSynVax draw on artificial intelligence and bioinformatic technology with the aim of creating antigens that can maximise protection against existing and future viruses. Based in Hertfordshire, the company has attracted £34.3m of grant funding to support its mission. Its largest award was issued by the Coalition for Epidemic Preparedness Innovation, a foundation financing independent projects to develop vaccines against emerging infectious diseases, in March 2022.
Spotlight company: Vaccitech

Activity: Pharmaceuticals
Location: Oxford
Incorporation date: 27/01/2016
Total funding raised: £121m

Oxford-based Vaccitech is developing a vaccine that intends to work against every strain of flu virus. The company spunout from the University of Oxford in March 2016, and has since secured £157m of equity investment across five fundraising rounds to support these aims.

The most recent of these took place in March 2021, with Vaccitech benefitting from £121m of investment accompanied by a £198m valuation. A month later the business underwent a £79.2m IPO, listing on the NASDAQ stock exchange in April 2021.
Map of high-growth life science companies

Number of high-growth life science companies per UK local authority (March 2022)

Number of high-growth life sciences companies per local authority
1
10+

Top ten local authorities by number of high-growth life sciences companies:
- City of Edinburgh
- Oxford
- Cambridge
- Camden
- Westminster
- City of London
- Manchester
- South Cambridgeshire
- Cheshire East
- Glasgow City
The broad field of healthtech refers to those companies working to develop technologies that facilitate healthcare professionals. These businesses aim to understand key challenges for those working in the industry, including data management, workflow processes, and the detection of diseases.

A key emergent technology in this sector has been via the introduction of cloud storage, which enables doctors to access and share medical information with more ease. Coordinate My Care, for example, has developed software specifically for the NHS that allows for electronic recordings of patient care plans and preferences, connecting all healthcare professionals involved with a patient.

The implementation of analytics-based technology has also aided individuals working in the field, with companies such as Abtrace using artificial intelligence to improve workflows. The London-based business uses analytical technology including machine learning to recognise patterns across electronic health records to inform proactive care.

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<thead>
<tr>
<th>Company profiles:</th>
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<tbody>
<tr>
<td><strong>Feebris</strong></td>
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<tr>
<td>Since launching in 2017, Feebris has been developing artificial intelligence software that assists in the monitoring and diagnosis of illness in children and elderly individuals by connecting with devices such as digital stethoscopes. The Essex-based business has secured £584k of equity investment, alongside £1m of grant funding.</td>
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<tr>
<td><strong>Lifelight</strong></td>
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<tr>
<td>Backed by the NHS England, the digital platform provided by Lifelight measures patients’ vital signs to detect infectious diseases, to monitor long-term conditions, and provide remote primary-care consultations. The facial scanning technology detects colour changes of the skin, unnoticeable to the human eye, which informs key diagnostic data including blood pressure, heart and breathing rates.</td>
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</table>
Grants and spinouts

Number and total value of grant funding secured by high-growth life science companies (2012-2021)

- Value of grants
- Number of grants

Number of academic spinout life science companies (2012-2021)

- Number of spinout incorporations
What are the most promising emerging areas in healthtech and why?

As a team we invest across all of parts healthtech and based on long term themes we see developing. Here are a couple of the areas I am particularly excited by at the moment.

First, changing views on when and how to have a family, and the related impacts on male and female fertility. I’m excited by the emergence of solutions (software and hardware) that help couples of today manage competing demands for time in life versus career, minimise the effects of reducing male fertility\(^1\) and enabling heterogeneous couples, single parent families and LGBTQ couples have fairer and equitable access to assisted reproductive technology. The emerging role of employers in this context is also very interesting from a go-to-market perspective, where there has been a noticeable shift in both employers’ offerings when it comes to health-related employee benefits, as well as employees’ expectations.

A second interesting area is managing the diagnostic backlog created by COVID-19. Cancer screening performance has decreased significantly in four of the five national screening programmes in the UK since the start of the pandemic\(^2\). This has already led to increased diagnosis of cancers in stages 3 and 4 and is anticipated to continue over the coming years. This will have a negative impact on disease mortality rates and make it more crucial than ever that we have low-cost decentralised testing. We are seeing an emergence of new point of care technologies and in some instances allowing for earlier stage diagnosis via novel biomarkers.

What do you find most exciting about investing in healthtech companies?

The positive impact we are having on quality of life and longevity, of patients and customers via the incredible companies we are investing in and supporting.

What is an overlooked area in healthtech that you think deserves more attention?

Automating and making our laboratories more resilient. High throughput diagnostic labs have never been vexed to the same extent in recent years which has given rise to an increase in automation of repetitive processes. Given peaking investment in synthetic biology and other diagnostic areas in both preventative and reactive healthcare, our view on customer expectations on processing speeds and accuracy by laboratory service providers will mean that automation is increasingly adopted in adjacent areas. This was the investment thesis for our recent investment in Automata.

Are there specific challenges that the founders of healthtech companies face?

All of the challenges any start-ups face which is many! In addition, we can face specific challenges in the following areas.

Firstly, data collection and data diversity — needed for building population reflective algorithms, validating novel approaches, and providing a reference point for improvement.

Secondly, regulatory pathways — managing the competing demands for accuracy whilst developing a novel approach to solving a problem that has never been approached, and therefore regulated, in the same way before.

What is most needed to support and grow the contribution of healthtech companies to the UK economy?

We are past the point of the market being emerging but there are still gaps in our ecosystem that require further development. We need more public market healthtech exits and notable M&A to give earlier stage investors, as well as venture capital fund investors, comfort and excitement. Specialist investor capability, bankers and advisors that can support the finance ecosystem and ensure companies are financed appropriately and networked with key customer groups, will aid this transition.

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Microbiome-based therapies

Despite being overlooked in traditional medical spheres, the importance of maintaining a healthy microbiota has emerged in recent years following the introduction of genetic sequencing techniques that illuminate the numerous microorganisms that live in the human gut. This research has linked microbes to diseases such as type 2 diabetes, inflammatory bowel disease, Alzheimer’s disease, and various cancers.

Various emerging technologies have appeared responding to these developments. Some of these aim to tackle practical challenges for scientists researching the microbiome by addressing the lack of resources available. BioMe, for example, is developing a pill-sized device that facilitates sampling and studying of the microbiome.

Companies working in microbiome-based therapies have also expanded their potential by building platforms that critically analyse the data available. CHAIN Biotechnology, for example, uses their knowledge of gut microbiota, and their expertise in biology and fermentation, to create a drug development platform for vaccine development.

Company profiles:

- **Enteromics**

  London-based Enteromics has developed a remote microbiome monitoring platform, allowing users to track their personal microbiome by linking a disposable ingestible device with a smartphone app. The data gathered informs real-time insights into the microbiome, and provides users with actionable insights that will promote gut health.

- **ZOE**

  Spun out from King’s College London in 2017, ZOE uses machine learning software to provide users with personalised dietary recommendations based on the individual’s biological data such as their genetics and microbiomes. The company has secured £42m of equity investment, with their most recent fundraising round valuing the business at £115m.
### Spotlight company: Microbiotica

<table>
<thead>
<tr>
<th>Activity</th>
<th>Pharmaceuticals, research tools</th>
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<tbody>
<tr>
<td>Location</td>
<td>Uttlesford</td>
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<tr>
<td>Incorporation date</td>
<td>08/07/2016</td>
</tr>
<tr>
<td>Total funding raised</td>
<td>£62m</td>
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Microbiotica was founded by Dr Trevor Lawley, Prof Gordon Dougan FRS and Dr Mike Romanos to continue advancing research developed at the Sanger Institute that uncovered barriers to the translation of the microbiome.

Incorporated in 2016, the business aims to develop therapies using microbiotic-based medicines, and has attracted £62m in order to achieve this. The company was most recently valued at £35.2m during an equity fundraising event in March 2021.
The value of investment in life sciences companies has continued to grow over the past decade, increasing with a compound annual growth rate (CAGR) of 36.6%. This is higher than the investment growth experienced by all companies, which obtained a CAGR of 26.7% during the same time period. Despite the overall trend of positive growth in investment experienced by life sciences companies from 2012 to 2021, this was not linear over the course of the decade. Between 2018 and 2019, for example, investment figures suffered a small decline of 3.91%, while 2021 saw a dramatic 91.9% increase on 2020. Scottish Enterprise (137) was the largest investor in life sciences between 2012 and 2021, followed by Archangels (43) and Technology Venture Investments (34).

Number and total value of equity investment by high-growth life science companies (2012-2021)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of deals</th>
<th>Number of deals</th>
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<tbody>
<tr>
<td>2012</td>
<td>£115m</td>
<td>67</td>
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<tr>
<td>2013</td>
<td>£208m</td>
<td>108</td>
</tr>
<tr>
<td>2014</td>
<td>£233m</td>
<td>112</td>
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<tr>
<td>2015</td>
<td>£377m</td>
<td>156</td>
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<tr>
<td>2016</td>
<td>£436m</td>
<td>176</td>
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<tr>
<td>2017</td>
<td>£432m</td>
<td>186</td>
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<tr>
<td>2018</td>
<td>£812m</td>
<td>220</td>
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<tr>
<td>2019</td>
<td>£780m</td>
<td>277</td>
</tr>
<tr>
<td>2020</td>
<td>£990m</td>
<td>277</td>
</tr>
<tr>
<td>2021</td>
<td>£1.90b</td>
<td>323</td>
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Top investors into high-growth life science companies by number of deals (2012-2021)

<table>
<thead>
<tr>
<th>Investor</th>
<th>Deals</th>
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<tbody>
<tr>
<td>Scottish Enterprise</td>
<td>137</td>
</tr>
<tr>
<td>Archangels</td>
<td>43</td>
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<tr>
<td>Technology Venture Investments</td>
<td>34</td>
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<tr>
<td>Epidarex Capital</td>
<td>31</td>
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<tr>
<td>SyndicateRoom</td>
<td>30</td>
</tr>
<tr>
<td>Oxford Science Enterprises</td>
<td>29</td>
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<tr>
<td>TRI Capital</td>
<td>28</td>
</tr>
<tr>
<td>University of Cambridge Seed Funds</td>
<td>27</td>
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<tr>
<td>Barwell</td>
<td>26</td>
</tr>
<tr>
<td>University of Cambridge Enterprise Fund</td>
<td>25</td>
</tr>
<tr>
<td>UK Innovation &amp; Science Seed Fund (UKI2S)</td>
<td>25</td>
</tr>
<tr>
<td>IP Group</td>
<td>25</td>
</tr>
<tr>
<td>Touchstone Innovations</td>
<td>22</td>
</tr>
<tr>
<td>24Haymarket</td>
<td>21</td>
</tr>
<tr>
<td>Parkwalk Opportunities EIS Fund</td>
<td>20</td>
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What are the most promising emerging areas in life sciences and health and why?

I’d pick three: remote patient management, big data, and computer vision/robotics.

Remote patient management is an area that came into sharp focus during the pandemic and continues to be a promising area. Companies are building solutions that provide a superior patient experience—often at lower cost—and bring additional value through leveraging the continuous stream of patient data that is collected using smartphones and wearables.

Computer vision/robotics is advancing at such a pace from a technical point of view that autonomous surgery is becoming a realistic prospect. Computers will increase the speed and accuracy of procedures as well as reducing the risk of mistakes. Computer vision will also play a bigger role in analysing medical imaging to detect and treat disease, and develop treatments.

What is an overlooked area in life sciences and health that you think deserves more attention?

We have a vibrant funding ecosystem in the UK and the volume of capital flowing to healthtech companies is robust. That said, deep tech healthtech companies often find it harder to raise in the early days compared to the huge number of B2C health apps that have proliferated in recent years.

Are there specific challenges that founders of life sciences and health companies face?

I see three main challenges.

First, where a healthtech company’s primary customer is the NHS. It’s not a new observation but selling into the NHS is incredibly difficult and time consuming, and success with one trust does not automatically mean success with others. I encourage all founders to treat the NHS as a test bed and have a strategy that quickly allows for expansion to other customer types and geographies.

Second, where the product or service requires regulatory approval. Of course, some dedicated life science funds specialise in this space, but for many it is offputting as it means you have a significant amount of sunk costs before you can test with customers. I much prefer business models with quicker routes to market where you can rapidly iterate the offering. Many founders now take a hybrid approach where their initial product does not require approval and they put a regulated product further down the roadmap.

Third, founders, particularly experienced clinicians, moving from a role as a doctor to an entrepreneur need to quickly learn a wide range of business skills. The later in one’s career this switch happens, the more mental plasticity and willingness to change is required. The pace of startups can be an unforgiving place.

What is most needed to support and grow the contribution of emerging life science and health companies to the UK economy?

The NHS has taken some significant strides during the pandemic with a willingness to test and adopt technology where it lacked a sense of urgency before. We must continue to see gains here and not go back to the slow, ponderous procurement processes that startup founders had to navigate in the past. And whilst the NHS often comes in for criticism, pharma companies also need to continue refining how they work with startups—many of the innovation programmes big pharma have invested in over recent years are a start, but they need to be matched with organisation wide buy in and fast track procurement processes for startups with promising technology. Too often we hear about startups tied up in months or even years of procurement, onboarding and legal faff.
Immunotherapy aims to treat diseases, specifically cancer, by activating or suppressing the immune system. There are several advances taking place in this field. One example of this can be seen in the drugs developed by seed-stage Avvinity Therapeutics. The technology created by the company harnesses a novel immune adaptation in primates that encourages the immune system to raise antibody levels in response to “non-self” sugars presented on the surface of target cancer cells.

Another emerging technology in immunotherapy is being developed by Oxford-based Grey Wolf Therapeutics. Rather than directly targeting the immune system, the company’s technology aims to directly alter tumour cells, illuminating them as key targets for antibodies, extending the reach of immunotherapy in oncology.

Developments in immunotherapy have also expanded to benefit those suffering from autoimmune and inflammatory disorders. MicroBio, for example, is building new therapies that aim to restore immune balance through the precise activation of inhibitory pathways.

Company profiles:

- **GammaDelta Therapeutics**
  GammaDelta Therapeutics develops immunotherapeutic drugs using gamma delta cells. The unique properties of these cells are harnessed to improve patient outcomes among those with haematological malignancies and solid tumours. Spun out from King’s College London in 2016, the business has secured £36.2m of equity investment, with the most recent funding round valuing the company at £41.1m.

- **Immodulon Therapeutics**
  Launched in 2007, Immodulon Therapeutics has since been developing an immunotherapeutic treatment for pancreatic cancer. The company’s lead drug candidate, IMM-101, has delivered promising results in early clinical trials. The London-based business has attracted £24.4m of equity investment across six fundraising rounds.
Spotlight company: Prokarium

Activity | Pharmaceuticals
Location | Camden
Incorporation date | 11/03/2007
Total funding raised | £23.4m

Vaccine-developing Prokorium launched in 2014 with the aim of advancing technology and drug discovery in the field of microbial immunotherapy. The business aims to uncover new opportunities in immuno-oncology by building on advances in cancer immunology.

Prokarium has experienced the most success in their treatment of bladder cancer. The business has received seven grants in order to advance their discoveries, awarded by bodies such as Affordable Innovations for Global Health and Innovate UK.
Life sciences and health

Cell and gene therapy

These two forms of therapies have become increasingly popular biomedical trends in recent years, and are continuing to evolve. Cell-based therapies work by transferring cells with a relevant function into a patient, while gene therapies involve the transfer of genetic material and the uptake of the gene into the appropriate cells of the body.

Cell-based therapies have been recognised as a promising strategy for a range of diseases, particularly cancer. For example, technology has evolved to remove T cells from an individual patient, alter them to recognise and terminate cancer cells, before re-administering them to patients.

In comparison, gene therapies tend to be at earlier stages of development with most companies focused on gaining a greater understanding of the science involved. For example, Bactobio is currently researching the chemicals produced by bacteria in order to understand if, and how, these can be used to perform gene therapy.

Company profiles:

- **Leucid Bio**
  Since spinning out from King’s College London in 2017, LeucidBio has worked to build pioneering cell therapies for hard-to-treat therapies. The novel approach redesigns the chimeric antigen receptor (CAR) structure, giving CART-T’s new properties that have been proven to outperform previous generations of CART-T therapies during pre-clinical trials.

- **Drishti Discoveries**
  Seed-stage Drishti Discoveries is in the process of combining RNAi therapeutics with gene therapy by using proprietary technologies to modulate target gene expression and provide a long-term therapeutic effect. Since launching in 2019, the business has undergone one fundraising round in August 2020, securing £250k of equity investment with a pre-money valuation of £1.3m.
Spotlight company: Achilles Therapeutics

Biopharmaceutical company Achilles Therapeutics launched in 2016, and has since been developing personalised T cell therapies that target cancerous tumours without affecting healthy cells. Based in Stevenage, the business has commercialised its research by spinning out of University College London.

The company subsequently raised £177m of equity investment, and secured £43.5k in grand funding before undergoing an exit in April 2021. The company listed on the NASDAQ Stock Market in an IPO that raised £175m.
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Our platform is trusted by thousands of business professionals to help them find, research and monitor the most ambitious businesses in the UK. We collect data on every company that meets our unique criteria of high-growth; from equity-backed startups to accelerator attendees, academic spinouts and fast-growing scaleups.

Our data is also used by journalists and researchers who seek to understand the high-growth economy, and powering studies by major organisations — including the British Business Bank, HM Treasury and Innovate UK — to help them develop effective policy.

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