LONDON: AN INNOVATION HUB FOR HEALTH & LIFE SCIENCES

THROUGH THE APPLICATION OF DATA AND AI



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6 MEDCITY

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FOREWORD

COVID-19 has accelerated data-driven innovation across the globe, with artificial intelligence and data science at the forefront of addressing human disease and health. The coronavirus pandemic has led to increased acceptance of new technologies with strong buy-in from all corners of the life sciences and healthcare sector determined to keep this momentum going.

The convergence of London's world-leading life sciences cluster and its AI capabilities are a not-to-be missed testbed environment for companies to grow, scale and collaborate around bioinformatics and healthcare delivery. London offers an end-to-end innovation and commercialisation ecosystem benefitting from access to clinical research institutes, academia, the NHS and industry that can all work together to accelerate technology.

It is an exciting time for entrepreneurs and companies to join this fast-moving and evolving landscape which is seeing increasing collaboration across historically often siloed organisations. Similarly, policy is being developed to overcome legacy systems and regulations, which will underpin and speed up innovations.

Not only can bioinformatics and use of healthcare data lead to better health systems and outcomes, this also has the potential to create many new jobs in the technologies of tomorrow and make the capital's economy even more resilient in this post-COVID world.

This report outlines the opportunities for companies in this growing ecosystem, alongside new data and stories from entrepreneurs already scaling here. London & Partners and MedCity can help you navigate this complex ecosystem and give you access to those resources your business needs to scale – from data to talent, and partners to funding.

We invite you to join us here and collaborate with industry and researchers to unearth life-changing discoveries and technologies which will lead to better and more equitable health for all.



Allen Simpson Acting CEO London & Partners Neelam Patel CEO MedCity

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LONDON'S KEY STRENGTHS for data-driven innovation in health & life

sciences

Trusted data sources

Tap into trusted data sources through HDR UK and data hubs, with London hubs specialising in cancer, eye, respiratory and real-world evidence as well as connected primary care records across major London Trusts.

Access the market

Be supported in market access and the regulatory landscape through national agencies such as the MHRA, NICE and NHSX, all working under the accelerated access collaborative to accelerate adoption of innovative technologies.

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Funding opportunities

Invest in the success of your business and raise the necessary funds to grow as a world-leading financial centre and an AI sector that raised over £3bn in 2019 and 2020.



Trust and transparency in data access is a key priority with the patient voice being at the heart. The Centre for Data Ethics and Innovation advises the government along with independent organisations such as the Ada Lovelace Institute.

5 Make a change

With London's close links to governmental organisations, you can share issues and challenges with policymakers and collaborate to resolve them. Be part of a community learning from each other in this fast-moving landscape through organisations such as MedCity, TechUK and ABHI.



AN ECOSYSTEM BUILT FOR GROWTH

As the AI capital of Europe and the heart of UK's "golden triangle", London possesses unique strengths in harnessing the opportunities that AI technologies can bring to the world of health.¹ Deploying AI can speed up discovery and go-to-market strategies for new therapeutics, optimise healthcare delivery and augment clinical decision making. The city is well placed for companies to access the vital elements they need to grow and scale: investment, government support and access to data and skills.

1. CognitionX, London: The Al Growth Capital of Europe

ACCESS TO FUNDING

Recent data from PitchBook shows that life sciences companies headquartered in the golden triangle – London, Cambridge, Oxford – attracted £4.6bn in funding in 2020. Evidently, life sciences companies developing ground-breaking technologies are in high demand with investors.² Likewise, Al investment into London-based companies has grown rapidly in the past few years, with £3bn raised in 2019 and 2020. ³

Venture capital firms such as Atomico, Luminious Ventures and Air Street Capital specialise in supporting founders in this converging sector. The coronavirus pandemic has increased the focus of AI usage in healthcare, with many London-based health tech startups raising impressive funding rounds to expand their AI products.

2. PitchBook for Savills

- 3. <u>Dealroom,</u> 2021
- 4. <u>TechCrunch</u>, 2021
- <u>Fortune</u>, 2020
 PR Newswire, 2021
- 7. UKTN, 2021

Funding snapshot of London-based AI in health companies

\$53m

Raised by personalised nutrition startup ZOE, which combines big data and machine learning to come up with **predictive insights on nutrition**.⁴

\$15m

Raised by LabGenius, a startup developing a **new protein-based drug** using their machine learning-driven platform. ⁵

\$130m

Raised by Huma, which uses **AI for medical** research and clinical trials. ⁶

\$17m

Raised by Causaly, an Al and machine-learning platform that **transforms biomedical workflows**.⁷

GOVERNMENT SUPPORT

The UK offers one of the most supportive environments to encourage the growth of AI and life sciences companies. From favourable tax incentives to public grants for research and scaling of innovations, there are a wealth of options available when locating your business in London.

Tax incentives

Research and development (R&D) can be costly, but the UK has some of the most effective tax reliefs available in the form of R&D tax credits. R&D tax relief looks to incentivise the improvement of products and processes as much as blue sky thinking – and doesn't only apply to projects that are completed successfully.

There are two R&D tax credit schemes in the UK⁸:

• SME scheme: delivers between 25% to 33% of qualifying expenditure as refundable tax credits ⁹

• R&D expenditure credit (RDEC): delivers a 13% boost to earnings before tax, in the form of a taxable above the line tax credit. This equates to a circa 10% net tax benefit, which is repayable in cash where a company is loss-making.

The Patent Box scheme

This scheme is available to companies earning profits from goods and/or services that have been patented in the UK or with the European Patent Office. It takes the form of a lower effective tax rate at 10% of the relevant profits.

The process of applying for and accessing these benefits can be challenging, but our partners have built up strong expertise to help you navigate the applications.

<u>UK Government</u>, 2020 <u>BDO UK</u>, Research and Development Credits and Allowances

"Nowhere will you find a government more committed to free trade and contract law. The life sciences industry is global, by nature, it depends on a huge collaboration, internationally, on international supply chains, maybe more than any other industry."

Matt Hancock, Secretary of State for Health

11. Health.org, Artificial Intelligence and Racial and Ethnic Inequalities

12. The AI Ethics Initiative



Government initiatives

NHSX, the UK government's health tech unit, is leading the largest digital health and social care transformation programme in the world.¹⁰ The NHSX AI Lab brings together government, healthcare providers, researchers and tech companies to harness AI in the NHS at scale in an ethical manner. It is currently developing a National AI in Health and Social Care Strategy to be launched in 2022, in line with the soon to be released National AI Strategy. A streamlined one-stop shop for guidance on regulation and evidence is also being developed, which will make the regulatory pathway easier for innovators. As part of the NHSX AI Lab's AI Ethics Initiative they are investing in research and opportunities to ensure AI products used in the NHS will not increase health inequalities.¹¹

Additionally, the AI in Health and Care Award is making £140m available over three years to accelerate the testing and evaluation of technologies most likely to meet the aims set out in the NHS Long Term Plan. Four levels of award are available to support AI solutions, from initial feasibility and evaluation, to scaling up within NHS and social care settings.

A further £50m was made available to improve cancer diagnosis and treatments to scale up the work of existing Digital Pathology and Imaging Artificial Intelligence Centres of Excellence.¹²

^{10. &}lt;u>Open Access Government</u>, Pushing forward digital transformation in healthcare

CASE STUDY: KHEIRON MEDICAL



Kheiron Medical headquarters in London has developed Mia, a deep learning software to solve critical challenges in the NHS Breast Screening Programme, including reducing missed cancers, and supporting the recovery from the COVID-related backlog.

In 2020, Kheiron was successful in receiving Innovate UK funding for an evaluation of their product. They also won the UK Government's first AI in Health and Care Award to help them roll out Mia in 15 UK hospitals. As well as receiving funding support, Kheiron also received support through the expertise of the NHSX AI Lab and the Accelerated Access Collaborative team who are helping them successfully navigate the healthcare system in the UK. "One of the key drivers for us choosing to set up in London is the talent, technical as well as medical talent, and the access to the NHS. London has made it possible to work on policy, commercial and science all in one city. Paired with high-end level support of government, this is a unique opportunity to develop and scale products in the healthcare environment." #1

Sarah Kerruish, Chief Strategy Officer, Kheiron Medical

LONDON'S LIFE SCIENCES CLUSTERS

One of the main reasons why London is a great place to scale is its well-connected clusters, both locally and globally. From the bustling city centre to all four corners of the capital you find world-leading clusters of excellence that offer anything from lab and incubation space, to partnership opportunities and the ability to attract and access top talent. "We are pioneering cutting-edge technologies, life-changing treatments and ground-breaking programmes – the capital offers a huge number of opportunities for investors to support creativity across our thriving life sciences sector."

Rajesh Agrawal, Deputy Mayor of London for Business

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THE KNOWLEDGE QUARTER

This area has emerged as a cluster for Al in life sciences and health within a one-mile radius of King's Cross Station. The innovation district is home to companies such as Benevolent Al and Deepmind, as well as University College London, The Alan Turing Institute, the Francis Crick Institute and the Wellcome Trust. It also conveniently provides a fast connection to Cambridge and across the Channel to Paris, Brussels and Amsterdam. Bringing this all together is KQ Labs, an accelerator programme by the Crick Institute for early-stage data-driven health startups, in collaboration with Novartis and LifeArc.



The Knowledge Quarter continually attracts new projects that further strengthen the cluster. Merck, a US pharmaceutical group, is planning to build a £1bn UK hub, including research laboratories, called the London Discovery Research Centre. It will employ 800 people on the 220,000-square-foot site in King's Cross, with completion due in 2025.¹³ Pharmaceutical giant GlaxoSmithKline has opened a £10m Al hub that focuses on researching new cancer treatments. ¹⁴

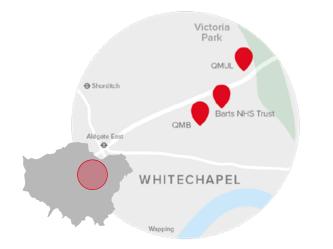
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Francis Crick Institute

"We are convinced that both the talent in London and the ecosystem will enable us to build a very vibrant hub."

Dr Hal Barron, Chief Scientific Officer, GSK

WHITECHAPEL: BARTS LIFE SCIENCES HUB



Located in east London, Whitechapel is well placed as a life sciences hub, with high commutability within London prompted by the planned arrival of the Queen Elizabeth Line, and the science talent created by both Queen Mary University (QMUL) and Barts NHS Trust. In addition to the already successful Queen Mary Bioenterprises (QMB) Innovation Centre, the Queen Mary Enterprise Zone has just launched an innovation space dedicated to growing and scaling digital health, medtech and AI SMEs. This co-working space is just across the road from a new research institute, focused on digital and data sciences (DERI), fostering innovations and supporting cross university research through the newly set up "Network for Medical Computing".

Genomics England, located in the area surrounding Whitechapel, has been a pioneer in genome sequencing with the 100-genome project, which is being extended to five million genomes sequences in the coming years. Data and Al play a crucial part in this project to handle the vast amount of data being generated and analysed. Key players in Asia are also showing interest in the area, for example BGI Genomics, a Chinese sequencing multinational, has just set up its UK operations at the QMB incubator to be part of the Whitechapel ecosystem of data and Al application in genomic sequencing. "I can confirm that we're making further investments in some of Genomics England's most cutting-edge projects, including the sequencing of newborns, in addressing the under-representation of ethnic minorities in genomic datasets, and funding next generation approaches to cancer diagnosis."

Matt Hancock, Secretary of State for Health

WHITE CITY INNOVATION DISTRICT

Moving on to West London, the White City Innovation District is now a leading destination for the biotech, digital and creative industries. In the heart of the area is the Imperial College research campus with lab space and co-location opportunities for companies at the Translation & Innovation Hub (I-HUB). Within minutes' walk from I-HUB, you can find the headquarters of global pharmaceuticals company Novartis, and they are joined by several biotech companies such as Synthace, which uses AI to automate lab experimentation, Autolus, a UCL spin-out, and GammaDelta, founded by researchers from King's College London and the Francis Crick Institute, who are working on T-Cell cancer therapeutics. The most recent addition is ADC Therapeutics, a Swiss oncology focused biotech company who announced their move to the I-HUB for summer 2021, to establish a new research centre with labs and office space.





"The UK life sciences sector is at a crossroads, with many opportunities available for cutting-edge innovation and partnerships. White City is fast becoming one of the UK's most exciting new hubs for life sciences, and puts us in the perfect position to continue working with our partners to find new ways to innovate and collaborate to build a healthier tomorrow."

Haseeb Ahmad,

Global Head of Value & Access and Commercial Development, Novartis UK

SOUTHBANK TO SUTTON



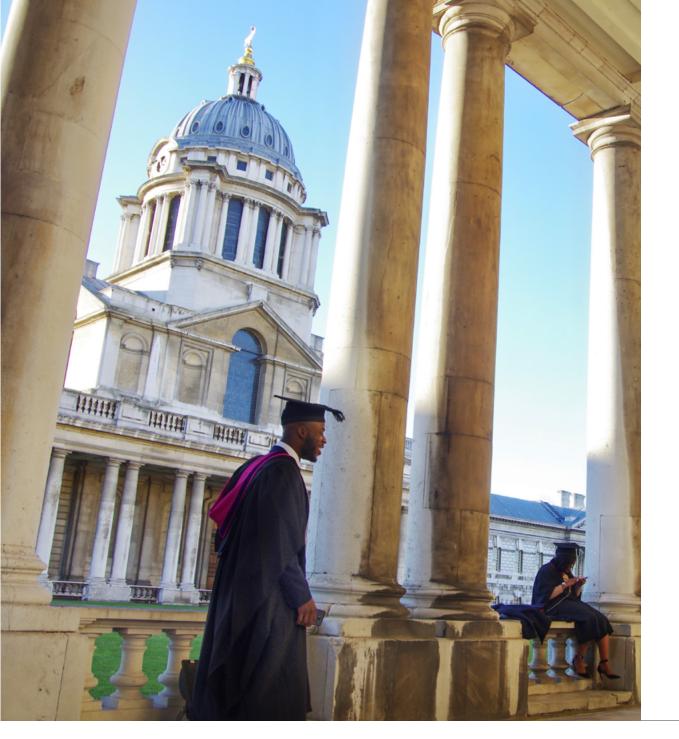
The life sciences and health cluster south of the river is rapidly growing. Southbank is already home to the Cell & Gene Therapy Catapult at Guy's Hospital, the King's College AI Centre, the NHSX London office, and the Health Foundry, a co-working space for innovative companies in healthcare such as DrDoctor. Further south towards Sutton is the exciting development of The London Cancer Hub, a collaboration between the Institute for Cancer



III MIT

Research (ICR) and the Royal Marsden Hospital. It is here that the Innovation Gateway, a high-quality incubator for life sciences companies to co-locate, is opening this year. A focus for the ICR is the application of AI and data in oncology. Its researchers have developed a large-scale AI database to aid drug discovery called canSAR. They continue to make breakthrough discoveries in treatment and understanding of the disease. "The creation of the Innovation Gateway is a really significant step forward in realising the vision of The London Cancer Hub, an ambitious partnership that aims to create a leading district for cancer research, treatment and commercial enterprise in Sutton."

Professor Paul Workman, Chief Executive, The Institute of Cancer Research



TALENT AND EDUCATIONAL EXCELLENCE

Tapping into London's deep talent pool and accessing our diverse talent will help you develop your products and services for a global market.

Students from more than 200 countries pursue their studies in London, adding their talents to the diverse, multilingual workforce already available in the city. Ensuring that students of any background can achieve their potential is a mission for several of London's social enterprises. London & Partners is itself piloting a programme to take new graduates from under-represented backgrounds and support them into rewarding and worthwhile roles across the technology sector.

EXISTING TALENT

The UK's AI talent pool is ranked second best in the world according to the H-index, meaning you not only have a wealth of talent to choose from, but also that London's workforce is up to world-class standards.¹⁵

As Europe's premier tech hub, London has the highest developer population in Europe with 357,000+ developers in Greater London. You will be able to tap into this deep talent pool of developers, data scientists and Al experts who also bring with them transferable skills from London's hugely successful fintech, games and digital health companies.

In life sciences, London is home to 10% of the UK's life sciences employment, equating to nearly 26,000 highly educated and experienced staff. ¹⁶

<u>Global Al Talent Report 2019</u>
 UK Life Sciences Bioscience and Health technology Sector Statistics 2019</u>



London is home to 10% of the UK's life sciences employment

The UK's AI talent pool is second best in the world

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developers in Greater London

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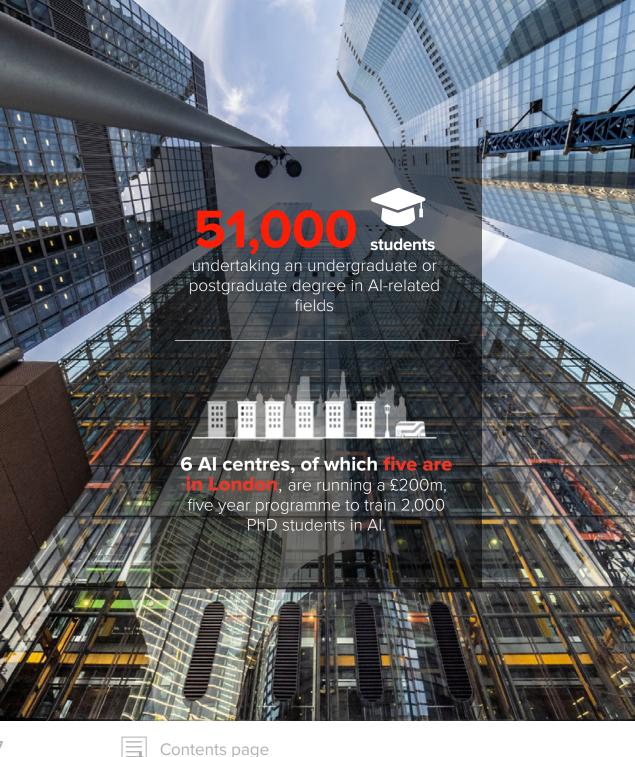
THE NEXT GENERATION

As a global centre for learning, London is home to more than 51,000 students undertaking an undergraduate or postgraduate degree in Al-related fields. ¹⁷

London's universities are a crucial component of the city's AI ecosystem. Many universities in the city have set up AI centres that carry out foundational research into AI application in healthcare, such as Imperial College London's UKRI Centre for Doctorial Training in AI for Healthcare and University College London's AI Centre.

To enable and encourage students from all over the world to come and work in London and the UK's digital tech sector, the UK government and Tech Nation have launched a Global Talent Visa. The visa allows founders and employees with technical or business backgrounds to stay in the UK for up to five years, after which they can apply for an extension or permanent settlement in the UK.¹⁸

HESA 2019/20
 Global Talent Visa, Tech Nation



CASE STUDY: PEP HEALTH



Selected as "One to Watch" by the Department for International Trade, London-based PEP Health has developed a cost-effective platform that uses real-time patient insights to identify risk, support quality improvement initiatives and help deliver value based healthcare. The AI algorithms on the Patient Experience Platform (PEP) automatically gather publicly available feedback so healthcare providers can easily understand what clients are saying about the quality of their care.

PEP Health chose to set up in London predominantly because of the talent quality and access to a global talent pool, as well as the many venture capital firms in the city.

The company received most support from accelerators like the Mayor's International Business Programme and the NHS Innovation Accelerator, which, as part of London's life sciences ecosystem, proved to be very successful for them.

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We asked the CEO what top tips he has for expanding your AI in healthcare company into London: "Start by building a network across London, then make the most of the vibrant partnership scene as a way to start building traction with your venture locally. Finally, think what evidence you can publish as there's a high demand to see evidence of the effectiveness of your solution."

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Mark Lomax, CEO, PEP Health



ACCESS THE MARKET: FROM NHS TO BIOPHARMA

London offers fantastic access to potential clients for your products and services. Both the public sector's NHS and the private sector's Biopharma companies are casting their eye on innovative solutions that leverage their data and use AI products to achieve efficiencies.

THE NHS ADOPTION OF AI TECHNOLOGIES

"We will fund more Al innovation, building on the 42 awardees of our Al Awards done jointly with the Accelerated Access Collaborative. We will continue to drive the better regulation of Al and digital in healthcare, working closely with the MHRA, NICE and others. We will step up our work to ensure deals on data give a fair return to the NHS through our newly established Centre for Improving Data Collaboration."

Matthew Gould, CEO, NHSX

The UK government has invested £250m into setting up the NHS AI Lab to bring together the industry's best academics, specialists and technology companies to work on some of the biggest challenges in health and care, including earlier cancer detection, new dementia treatments and more personalised care.

Across the NHS clinicians and managers are increasingly looking at how data and AI can help solve some of their biggest issues, as well as save time and resources. Barts NHS Trust partnered with AI company AIMES to develop an AI powered platform to augment clinical decision-making based on cardiovascular imaging.¹⁹ Moorfields Eye Hospital NHS Foundation Trust and DeepMind Health's collaboration led to a scientific breakthrough AI system. This can recommend the correct referral decision for over 50 eye diseases with 94% accuracy, matching world-leading eye experts.²⁰ Recently, Faculty – a leading AI technology company – started working with NHS England and NHS Improvement to use AI to enhance forecasting and predicting capabilities based on the data insights acquired during the coronavirus pandemic. ²¹

For companies looking to engage with the NHS, the Academic Health Science Network (AHSN) is here to help. It is made up of 15 networks across England and was set up within the NHS to identify and help scale innovation into the NHS. It is an invaluable partner for companies looking to engage with the NHS, and can give support on a range of issues, from evaluating and piloting your product, to evidence gathering and spread across NHS England.

Barts Life Sciences, 2020 AIMES launches OpenCARE platform with Barts Life Sciences CAP-AI team and UCL
 Moorfields, 2019 Breakthrough in AI technology to improve care

for patients 2001 Breaktinough in Artechnology to improve c

^{21. &}lt;u>UK Tech News</u>, 2021

SPOTLIGHT: UCL PARTNERS



UCLPartners is a partnership of 23 NHS trusts, 20 Clinical Commissioning Groups, six Integrated Care Systems and nine higher education institutions covering a population of over six million people across north, central and east London, and parts of Essex, Hertfordshire and Bedfordshire.

Its Commercial & Innovation team have networks across the NHS ecosystem, and they specifically focus on collaboration with industry and identifying health system needs for innovation and technology. By drawing on their knowledge of the NHS ecosystem, as well as their academic partners,

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they can provide support to innovative companies approaching the NHS market. This ensures a company can effectively navigate this complex landscape and approach the NHS market in the best possible way, building up its evidence base and increasing its chances of adoption in the UK.

UCLPartners has a particular interest in AI technology to increase service efficiency, improve diagnostic screening and support the NHS recovery from the coronavirus pandemic. It runs a number of AI-based projects locally and is keen to hear from international companies with innovative AI technology to test, trial and pilot within the NHS.

AN INNOVATIVE BIOPHARMA CLUSTER

London and the Southeast are home to Europe's largest life sciences and health cluster with 19 out of the 20 top global pharmaceutical companies headquartered here, including Novartis, Takeda, Gilead, MSD, GSK, and Astra Zeneca.

During the coronavirus pandemic many of the innovations we have seen have been co-created by SMEs and large pharma companies, supported by academics in London, Oxford and Cambridge to harness the power of innovation and manufacturing. As a competitive sector, these biopharma companies are always on the lookout for the best technology and data partners to help them gain an advantage.

Companies are supported by a broad ecosystem consisting of networks; for example, to accelerate therapies that benefit patients, MedCity's Advanced Therapies Network (ATN) brings together the collective expertise of industry, academics, the NHS, charities and government bodies. Startups are supported by accelerators such as P4 Precision Medicine and KQ labs accelerator programmes, as well as the Cell and Gene Therapy Catapult that offers specialist support to help scale businesses in London. Orchard Therapeutics is one of London's many successful Biopharma companies, treating rare disorders in children through innovative gene therapies. The company partners with world-leading institutions in gene therapy, including University College London and Great Ormond Street Hospital, and has conducted clinical trials in the UK and the US. It raised a total of \$260m in series A and B before their IPO in 2018.

CASE STUDY: MULTIPLAI

MultiplA

MultiplAI is a genomics driven diagnostics company that offers a whole blood screening test using RNA sequencing and AI to detect virtually any complex diseases, including cardiovascular disorders and cancer.

The company was founded in Buenos Aires and moved their global headquarters to London in April 2021. They work closely with Illumina, a Cambridge-based leader in sequencing solutions, to further develop and validate their whole blood super biomarker approach. The company is using London as a springboard to expand into other territories, and developing partnerships to set up in the US and selected countries in Europe. "London is MultiplAI's global headquarters because it is one of the premier biotech, AI and genomics hubs in the world. London attracts the world class scientific talent and potential partners that are needed to succeed in our efforts to make cardiovascular disease diagnosis and prognosis universally accessible to anyone on earth."

Mark Ramondt, Co-Founder, MultiplAI

AN ACCESSIBLE, DIVERSE AND DATA-RICH ENVIRONMENT

DIVERSE POPULATION AND DATA

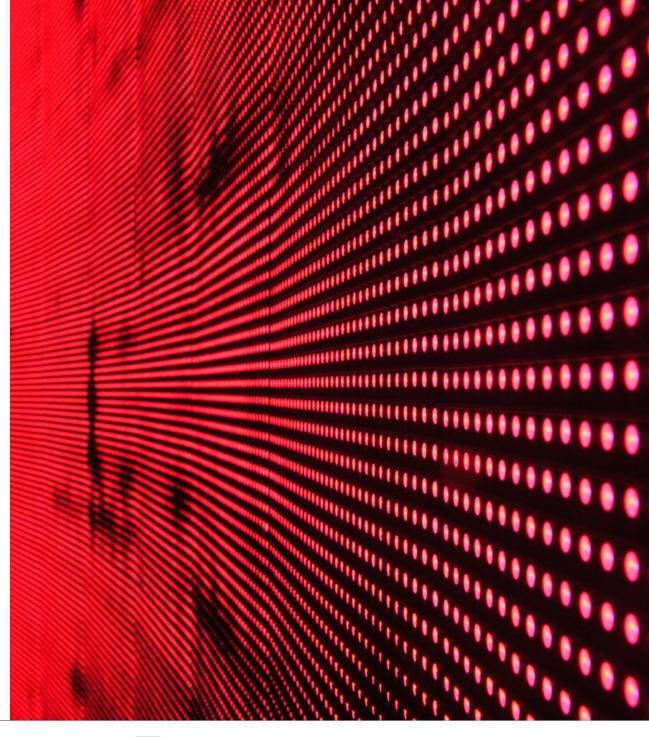
London is home to a highly diverse population supported by a large single healthcare system that maintains extensive patient records – over eight million patients use the NHS in the capital, over a third of whom were born outside the UK.

For those companies looking to run clinical trials, this concentration of diverse patient groups in a relatively small geographic area makes setting up trials, and identifying and recruiting the right patient groups, easier and faster. Between 2015 and 2020, over 5,000 commercial clinical trials took place and nearly 43,000 people were recruited.

Having a diverse population also allows companies to access very diverse data sets on which to build and train their algorithms, resulting in more effective products and services, and ones, crucially, which can contribute to lowering health inequalities.

PARTNER WITH THE HEALTH DATA RESEARCH HUBS

Health Data Research Hubs (HDR UK) help researchers get access to UK health data and data science services. Each hub specialises in one aspect of healthcare, using its knowledge and expertise to utilise data to innovate in its field. The health data hubs are all making high-quality datasets available through the Health Data Research Innovation Gateway. Three of the hubs – **DATA-CAN (cancer), INSIGHT (ophthalmology) and Discover-NOW (real-world data)** have major London data assets. Companies can also access NHS DigiTrials (clinical trials), BREATHE (respiratory), Pioneer (acute care), Gut Reaction (inflammatory bowel disease) and the BHF Data Science Centre (cardiology).



SPOTLIGHT: DATA-CAN HDR

DATA-CAN The Health Data Research Hub for Cancer

Do you want to learn more about how DATA-CAN works with the life sciences sector?

Read more here. >>>

DATA-CAN's aim is to make high-quality health data more accessible for cancer researchers and health professionals, to help improve cancer services and patient outcomes.

In the UK, over 400,000 new cases of cancer are diagnosed each year. Comprehensive health data is collected for these patients; however, this data has not been readily available for researchers to access and analyse. Improving access to cancer data for research is crucial to improving cancer services and outcomes for cancer patients.

How DATA-CAN works with life sciences companies:

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• Finding research-ready cancer data assets and putting details onto the Innovation Gateway for researchers to review feasibility.

• Making introductions to the most appropriate data controllers and data service providers.

• Delivering data analysis projects on patient-level data and making anonymised results and insights available to commercial project sponsors.

• Providing expert advisory services regarding data availability and utilisation, and patient involvement and engagement.

LONDON'S RESILIENT COVID-19 RESPONSE

The strengths of London's AI in the health sector are reflected in the resilience that London's life sciences sector has shown in the wake of COVID-19. World-leading science has taken place in vaccine development, diagnostics, and testing and disease modelling.²² New innovators have sprung up to address challenges central to the coronavirus pandemic and scale ups pivoted quickly to ensure their expertise could also be applied. A snapshot of London companies and universities that have supported the coronavirus pandemic:

ZOE

App

COVID-19 Symptom Study app ZOE was set up by a London startup in collaboration with King's College and Guy's and St. Thomas Hospital.²³ This epidemiological research app mobilised the UK population to share symptoms, movements and test results, and demonstrated the power of large-scale science and the use of machine learning.

Benevolent Al

BenevolentAl is a leader in the application of Al in drug discovery and development. Its technology derived a hypothesis for COVID-19 treatment through the existing drug baricitinib. The hypothesis was subsequently validated in a US National Institute of Allergy and Infectious Diseases (NIAID) randomised control trial. ²⁴

Brunel University

Researchers at Brunel University developed an algorithm which identified COVID-19 automatically from sick patients' lung X-rays. Using deep learning has supported physicians in spotting and then treating the disease more accurately. ²⁵

DrDoctor

DrDoctor, a health tech company that is transforming how hospitals communicate with patients, developed a service that allows healthcare providers to start ranking patients using algorithms which prioritise the most urgent appointments with a traffic light or scoring system. ²⁶

<u>Unleashing Innovation</u>, MedCity, 2020
 <u>Digitalhealth.net</u>, 2020

24. <u>PR Newswire</u>, 202025. Brunel University London, 2020

26. <u>Sky News</u>, 2020

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CASE STUDY: INSTADEEP



InstaDeep is a global leader in decision-making AI products and is headquartered in London with offices around the world. Leveraging its advanced capabilities in GPU-accelerated computing, deep learning and reinforcement learning, InstaDeep has built products such as its novel DeepChain[™] protein design platform.

InstaDeep works with esteemed research partners such as the University of Oxford, Imperial College and the University of Michigan. During the COVID-19 pandemic, the London company announced a partnership with German vaccination developer BioNTech to form a joint Al Innovation Lab in London and Mainz, Germany. The partnership aims to develop novel immunotherapies for a range of cancers and infectious diseases through the application of Al. Aside from this high-level partnership, InstaDeep has also developed strong collaborations with global pioneers in the London Al ecosystem, like Google's DeepMind, NVIDIA and Intel. "InstaDeep started as a bootstrap with two laptops and \$2000 dollars in 2014, and today we are listed as one of the top 100 most promising AI startups in the world by CB Insights for the second year running. This is thanks to London's vibrant ecosystem of research institutions, investors, accelerators and fast-growing companies creating the perfect environment for our company to scale."

Karim Beguir, Co-Founder and CEO, InstaDeep



LONDON & PARTNERS

How London & Partners can support:

- Support your decision-making process if London is the right place for your company's expansion plans.
- Help to explore the opportunities showcased in the report and connect you to London-based stakeholders in the healthcare system.
- Advise you on setting up a business in London, from creating a legal entity to searching for an office space with the help of our commercial partners.

Contact London & Partners >>>



How MedCity can support:

- Provide a front door to the UK life sciences and healthcare ecosystem, brokering relationships with academia, industry, research institutes, investors and the NHS.
- Support your landing in London, including visa approvals and finding the right space with appropriate infrastructure.
- Connect you to our established and growing communities in Cell and Gene therapies, Diagnostics, Digital Health, and Data and AI.

Contact Med City >>>

THANK YOU FOR READING

We're looking forward to supporting you in this fast-moving and evolving landscape.

