



Cell and Gene Therapy Catapult

Annual Review 2025 - accessible design

Helping companies scale and grow

## Introduction

Cell and Gene Therapy Catapult (CGT Catapult) is an independent innovation and technology organisation specialising in the advancement of the cell and gene therapy industry.

We deliver through the creation of powerful collaborations which overcome challenges to the advancement of the sector.

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## Our vision

# A thriving industry delivering life-changing advanced therapies to the world

#### Our role

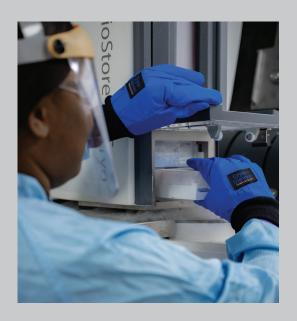
Our role is to create powerful collaborations which overcome challenges to the advancement of the sector.

#### How we work

We are a team of experts covering all aspects of advanced therapies. Applying our unique capabilities and assets, we collaborate with academia, industry and healthcare providers to develop new technology and innovation.

## Our impact

Our outputs leverage research, transform barriers into industrial advantage and attract investment for our collaborators. We help people acquire new skills, organisations establish new capabilities and policymakers develop new perspectives.



## To advance the industry, we collaborate with:



academia and researchers, to increase the flow and speed of translation of promising research into new therapies and supporting technologies...

**industry,** to bring down the cost of goods and increase the capacity to meet the upcoming demand for advanced therapies...

healthcare services, to increase access to clinical trials, uptake of approved products and bring down the cost of use.

The partnerships we have developed have helped to position the UK as a global leader in the development of advanced therapies. The partnerships continue to drive growth and investment in the development of advanced therapy medicinal products (ATMPs) and realise value for the UK economy.

## 2024/25 CGT Catapult outputs and outcomes



127

collaborative projects



27

university and research institute collaborators



21

international commercial collaborators



70

companies collaborated with on ATMP innovation (60% of which are UK SMEs)



£177<sub>m</sub>

in financing raised by our UK collaborators

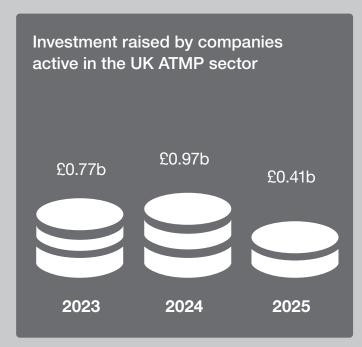


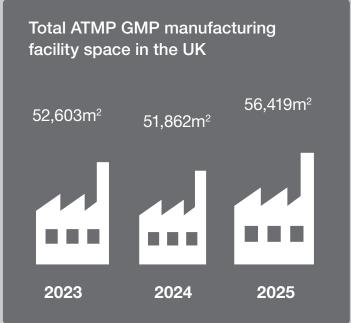
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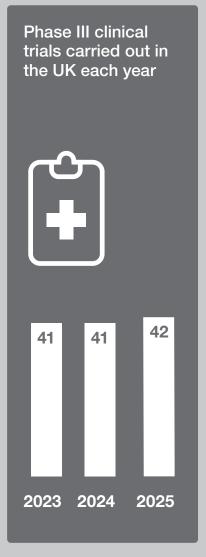
companies supported that are conducting clinical trials

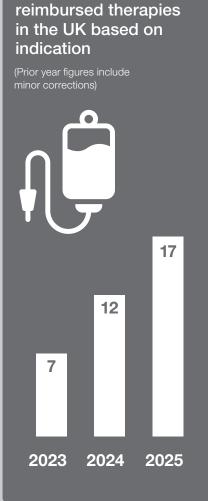
## UK ATMP industry growth and CGT Catapult impact

Figures are for the end of the given financial year

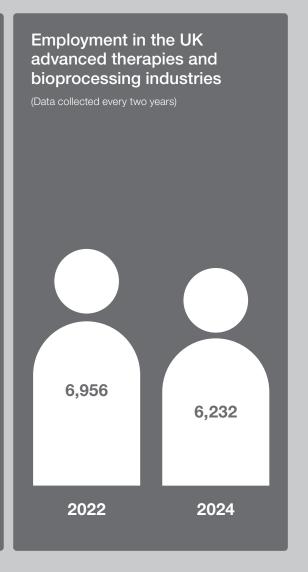








Approved and



## Chair's statement



**Dr Jim Faulkner** Chair

The advanced therapy industry is critical to improving patient care, driving economic growth, and contributing to the Government's ambition of making the UK one of the world's top three life sciences economies by 2035.

Advanced therapies not only provide life-changing treatments for a range of devastating diseases, but provide an opportunity for the NHS to benefit from the one-time nature of many of these therapies, which has potential to alleviate pressure on waiting times and resources.

With this increased demand for advanced therapies, to realise their advantages for patients and support the Government's mission of improving health, it is crucial that healthcare services are able to deliver these therapies on a large scale.

CGT Catapult has an important role to play, supporting healthcare systems to adapt to these treatments. For example, in 2024, a further centre was added to the Advanced Therapy Treatment Centre network, to help address the complex challenges of bringing advanced therapies to patients.

The advanced therapies sector also plays a key role in another priority area for the Government: driving growth.

CGT Catapult is supporting this, for example by helping the industry adopt new technologies that will increase productivity. In the past year, this has included working with academia to develop a digital twin of complex processes, to enable manufacturing conditions to be refined.

The advanced therapies sector is crucial to the future health of the UK, with the sector also contributing to the Government's economic goals. CGT Catapult is committed to ensuring this sector thrives, and these benefits are realised.

Thank you to everyone at the CGT Catapult for your dedication and commitment; our collaborators for their ongoing support; and to lan McCubbin who, as Chair for the past three years, has ensured the CGT Catapult has continued to meet the needs of this evolving sector.

## Chief Executive's statement



Matthew Durdy
Chief Executive

With the Government focused on improving health and driving forward productivity and growth for the economy, the Catapults have a vital role to play providing expertise, access to innovative technologies, and attracting global investment into the UK.

At the CGT Catapult, in the past financial year, we supported 70 companies on advanced therapy innovation, with 60% of these being UK small and medium businesses.

The Catapults' unique position, as a trusted intermediary between industry and regulators, and working with stakeholders across our respective sectors, enables us to identify industry-wide challenges and direct resources to overcome these.

We've worked with academics and companies to unlock the potential of their research and realise its value. For example, with the Cross-Catapult Investment Pilot, we've invested in Cambridge University spin-out Spliceor, to support its development of a gene therapy platform, first being used to target liver cancer.

We've supported companies to adopt new technologies. With the opening of our Digital and Automation Testbeds, we are supporting companies to develop therapies more efficiently, safely, and at a greater scale.

The Catapults provide significant energy and resources which support industry growth. Through this, they act as an important foundation to the innovation ecosystem in the UK.

Together, they have significant potential to contribute to the Government's mission of delivering strong, secure, and sustainable economic growth to boost living standards.

On behalf of everyone at the CGT Catapult, we thank our outgoing Chair lan McCubbin for his leadership and dedication to our vision over the past three years. We also extend our gratitude to our partners, Government, and Innovate UK for their continued support.

## Securing the benefits of advanced therapies

CGT Catapult is focused on building a thriving advanced therapies industry, with the health and economic benefits that the industry creates being realised across the UK.

## Accelerating the emergence of new therapeutics

For there to be a thriving industry, there needs to be a flow of therapies coming through clinical trials and entering commercial use. There is a growth in approvals for advanced therapies, with two therapies receiving NICE approval in 2024. In the US and EU, there were 10 cell and gene therapies approved in 2024 alone.

While global investment in the industry has continued, companies face a challenge securing funding to progress their experimental therapies through the early stages, as clinical data is not yet available and investors are more cautious. Providing support to enable the translation of academic research in spin-out companies is crucial to ensuring there is a strong pipeline of therapies in development.









#### Case study: Spliceor

# Spliceor receives investment from the CGT Catapult as part of the Cross-Catapult Investment Pilot

The Challenge: Securing funding is vital for early-stage companies to progress their experimental therapies.

The investment in Spliceor, a spinout from the University of Cambridge, will support buildout of its team and the pre-clinical development and validation of its trans-splicing gene therapy platform to treat cancer and other indications. The technology is first being used to target liver cancer.

With support from Innovate UK, the Cross-Catapult Investment Pilot allows organisations in the Catapult Network to make seed investments into promising organisations. By enabling the CGT Catapult to invest in early-stage companies, the pilot will help to ensure there is a stronger pipeline of novel therapies being developed.



"We are grateful to receive this significant investment, which recognises Spliceor's potential to transform lives through innovative gene therapies. This funding will accelerate our research and development, enabling us to build on our goal of delivering more specific and effective gene therapies, advancing our assets toward clinical trials and ultimately delivering life-changing treatments to patients."

#### **Dr Tim Landy**

Chief Executive Officer, Spliceor

## Lowering cost and increasing supply

The current methods for producing advanced therapies are highly inefficient. This restricts the ability to produce these therapies at scale and results in a high manufacturing cost.

A substantive shift in manufacturing technologies, introducing digital and automation platforms and tools, is needed to address these challenges and enable therapies to be more widely adopted for higher prevalence diseases.

For example, digital capabilities have been established for both viral vector processes and cell products. These can be used to integrate and control higher-density automated processes, analytical platforms, and quality control systems.

The advanced therapies industry is also looking at how to introduce more sustainable methods and technologies into development and manufacturing. This will not only reduce the environmental impact of this field, but help lead to improvements in efficiencies that reduce costs and enable therapies to be produced at scale and for diseases with larger patient populations.





Case study: Pharmaron Biologics (UK) Ltd and Complement Therapeutics

Enabling efficient and cost-effective production of adeno-associated virus (AAV) vectors

**The Challenge:** There is a need to produce AAV vectors more efficiently and at a scale that meets the demand of an increasing number of products.

CGT Catapult, Pharmaron Biologics and Complement Therapeutics are collaborating on a two-year project to develop an intensified perfusion process for the production of AAV. Perfusion processing enables the continuous exchange of fresh culture medium and the removal of process waste. This could potentially enable AAV to be produced with a much higher density of cells and in a continuous mode, substantially reducing production costs.

Pharmaron Biologics will apply the process to its AAV platform, helping the gene therapy developers that it works with to benefit from improvements in AAV yield, quality and lower manufacturing costs.

Complement Therapeutics aims to harness learningsfrom the new process for the future development of its AAV gene therapy product pipeline.



"A fantastic collaborative project with important outputs, not only for a therapeutic product but for wider AAV manufacturing platforms. Exciting to bring Pharmaron's extensive expertise and proven track record in gene therapy manufacturing and analytics to the collaboration."

#### **Dr Paul Young**

Director, Process Sciences, Pharmaron Biologics (UK) Ltd





#### Case study: Cellular Origins and Autolomous

# Digital and Automation Testbeds enable the scale-up of advanced therapy manufacturing

The Challenge: Implementing digital and automation technologies into regulated manufacturing facilities.

CGT Catapult established two Digital and Automation Testbeds, modules that mirror Good Manufacturing Practice (GMP) and that provide simulation and testing space for companies to collaborate, reduce the risk of deploying these technologies at scale in their facilities, and forge new manufacturing and distribution pathways.

Alongside the Process Analytical Technology (PAT) Laboratory, the facilities provide a suite of physical and digital capabilities that can be used by developers to improve therapy production.

One testbed is equipped with Cellular Origins' universal automation platform, Constellation®, which integrates a range of current manufacturing automation equipment, and with potential to integrate future technologies. The testbeds also offer access to Autolomous' advanced orchestration and critical manufacturing management software, autoloMATE®, a fully integrated and digitised supply chain ecosystem which reduces costs and enables scaled up manufacturing.

The testbeds are among the first facilities in the world that have been specifically designed to provide a space for the cell and gene therapy industry to collaborate on automation, digital and robotic technology.



"The installation at the Cell and Gene Therapy Catapult is a step forward in unlocking the potential of cell therapies by overcoming the manufacturing challenges that have held back the industry to date."

#### **Edwin Stone**

Chief Executive Officer, Cellular Origins

"We believe in the CGT Catapult's leadership and vision to improve patient access to life-saving therapies. There is a strong spirit of collaboration and teamwork at all levels of the organisation."

#### **Walid Fahme**

Chief Operating Officer, Autolomous

## **Ensuring a strong supply**



As the number of clinical trials and approved therapies increase, there needs to be a substantial and robust manufacturing sector capable of meeting the demands of this rapidly expanding uptake.

Working towards this, manufacturing infrastructure in the UK has continued to grow, with many companies either investing in in-house manufacturing operations, or partnering with the established contract development and manufacturing (CDMO) industry.

Helping the testing and adoption of innovative, high-throughput manufacturing technologies in these settings will be key for industry to produce therapies more efficiently, sustainably, and at the large scales that will be needed in the years to come. This needs to be supported by a skilled workforce, with expertise in applying these technologies.







#### Case study: University College London (UCL)

## Developing a digital twin for CAR-T manufacturing

**The Challenge:** Manufacturing CAR-T products is complex, with the cell expansion phase posing specific challenges due to the sensitivity and variability of the cells.

CGT Catapult is working with UCL Associate Professor Stephen Goldrick to develop a process digital twin of the cell expansion phase used during CAR-T manufacturing. It will be created using data from advanced real-time process and product analytics, and will be used to identify and control the optimal process conditions to deliver products of predictable quality.

The digital twin will evolve, being updated with additional process information as more batches are completed, allowing for dynamic feedback and further refinement of the manufacturing conditions.



"It's been a pleasure collaborating with the CGT Catapult on this important project. Using their high-value omics CAR-T dataset, we're developing AI and digital twin tools to better understand and optimise manufacturing. The goal is to reduce timelines and costs, and ultimately deliver these critical therapies to patients faster."

#### **Dr Stephen Goldrick**

Lecturer in Digital Bioprocess Engineering UCL

## Skills and training in 2024/2025















#### Case study: Advanced Therapies Apprenticeship Community (ATAC)

## 100 apprenticeships completed through ATAC

**The Challenge:** It is vital to ensure there is a strong supply of talent for the sector, as it continues to grow and introduces innovative technologies that require new skills.

In 2024, ATAC reached the milestone of supporting 100 apprentices to successfully complete their courses. Since welcoming its first apprentice in 2018, ATAC has been a pioneer in addressing the skills gap in the cell and gene therapy industry. By creating new routes into the sector, it has provided many valuable opportunities for individuals to enter and progress in this field.

With the support of industry leaders, academic institutions, and the CGT Catapult, ATAC has grown into a vital programme for nurturing the next generation of talent.

"My apprenticeship gave me my career path and the chance to attend university, which I'd thought I'd never be able to do. It is such an important part of my life and I've enjoyed every day of it!"

Lauren Beasley ATAC's 100th graduate



## Enabling high uptake across the UK

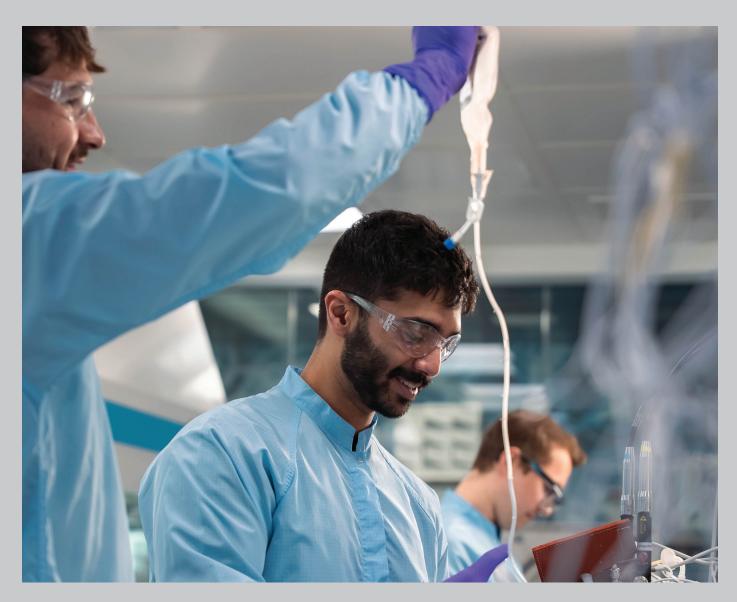
UK decision-making bodies have made various updates which help to create an environment that supports the uptake of advanced therapies.

The NHS commercial framework was updated in January 2025 following a public consultation. Key highlights from the updates include an increase in the net budget impact threshold from £20m to £40m per year in the first three years after launch of a new medicine. This change will make it more feasible for high-cost therapies to be recommended in the NHS for larger populations.

The framework also introduced indication-based pricing, allowing medicines that target multiple indications to be commissioned at different prices. This allows flexibility in cases where the level of clinical benefit that a therapy offers differs between indications.

In addition, a more pragmatic approach to pricing can now be achieved through a framework that allows companies that manufacture different medicines that will be delivered as a combination to discuss pricing as a whole. This will help enable the combination to be offered at a cost-effective price overall.

A further positive update was the relaunch of the MHRA's Innovative Licensing and Access Pathway (ILAP), the only end-to-end access pathway where developers can engage with regulators, health technology assessment (HTA) bodies and the NHS, maximising chances of therapies being adopted.





#### Case study: Advanced Therapy Treatment Centres

#### ATTC network focuses on improving access to and infrastructure for clinical trials

**The Challenge:** Due to the innovative nature of advanced therapies, the large-scale delivery of these therapies through the healthcare system requires new processes and skills.

The ATTC network works in close partnership with the NHS and industry to address the complex challenges of bringing advanced therapies to patients. In 2024, the network welcomed a new centre based in London which will enhance the ATTC network's offering across the country.

A key focus for all centres in the network is working with its partners, including the NIHR, and healthcare providers to improve the infrastructure for advanced therapy clinical trials. This aims to increase the number and speed of trials and help more patients take part in them.

The network is also focused on offering training and education to the healthcare sector to assist in the development of local structures, systems, procedures, and processes that are needed to deliver advanced therapies at scale.

The ATTC network is coordinated by the CGT Catapult with funding from NIHR and Innovate UK.





#### Case study: UK ATMP-specific Centre of Excellence for Regulatory Science and Innovation

## Centre established to identify opportunities for regulation to support innovation within advanced therapies

**The Challenge:** The effective regulation of advanced therapies is vital to ensure that patients can access these transformative treatments promptly, to prepare the healthcare sector for the large-scale deployment of these therapies, and to ensure patient safety.

CGT Catapult and the Birmingham Health Partners Centre for Regulatory Science and Innovation have established a centre to work with industry and UK regulators to identify effective and efficient regulatory strategies that address the unique challenges of these therapies.

By sharing its recommendations with therapy developers and regulatory and healthcare stakeholders, it will support the UK in building a first-in-class regulatory ecosystem that welcomes and encourages healthcare innovation.

The centre has been established with funding from Innovate UK and support from the MHRA.

"As the number of advanced therapies requiring regulatory approval increases, it is essential that regulatory frameworks are developed that are fit-for-purpose. Our focus at Birmingham is understanding how the patient voice can help shape regulatory decision making and ensuring that we understand the risks and benefits of treatment from the patient perspective."

#### **Professor Melanie Calvert**

University of Birmingham

#### The future

Advanced therapies are revolutionising the way we treat diseases, and their application is widening from rare genetic disorders to higher prevalence conditions. With the right focus and collaboration, the UK is well-positioned to solidify its role as a global leader in this field, turning scientific breakthroughs into real-world treatments that improve lives and ease the burden on healthcare systems.

To make the most of this opportunity, the advanced therapies sector must continue to evolve. That includes speeding up innovation, investing in cutting-edge technologies to lower cost of goods, applying more sustainable manufacturing capabilities to meet a rising demand, and building the healthcare systems and skills needed to deliver these therapies to patients.

CGT Catapult is working closely with partners across this ecosystem to tackle these challenges and unlock the full health and economic potential of advanced therapies across the UK.



## Financial highlights

## Income

For year ended 31st March 2025	2025 £'000s	2024 £'000s	2023 £'000s	2022 £'000s	2021 £'000s
Innovate UK core grant funding	16,000	16,000	19,400	14,500	14,200
Third party grant funding	28,000	24,100	26,200	34,500	34,500
Industrial income	16,300	22,000	23,600	25,300	21,200
Total	60,300	62,100	69,200	74,300	69,900

## Balance sheet

For year ended 31st March 2025	2025 £'000s	2024 £'000s	2023 £'000s	2022 £'000s	2021 £'000s
Fixed assets	72,000	75,000	82,500	81,800	74,600
Net current assets	22,800	37,500	30,400	34,400	28,300
Creditors	(8,100)	(18,200)	(11,600)	(17,600)	(17,100)
Provision for liabilities	(18,000)	(20,100)	(20,300)	(19,900)	(13,600)
Net assets	68,700	74,200	81,000	78,700	72,000
Capital and reserves	68,700	74,200	81,000	78,700	72,200

## Corporate governance

## Cell Therapy Catapult Limited\* is an independent, not-for-profit company limited by guarantee.

The CGT Catapult receives substantial grants from Innovate UK and works in coordination with them while remaining independent and self-governing.

#### Operating subsidiaries

Cell Therapy Catapult Services Limited and the CGTC Manufacturing Innovation Centre Ltd.

#### Our committees as of September 2025

We have established four committees that meet independently and make recommendations for the Board.

#### **CGT Catapult Nomination Committee members**

- Dr Jim Faulkner (Chair)
- Dr Steven Chatfield
- Hilary Newiss, FMedSci

#### **CGT Catapult Remuneration Committee members**

- Dr Steven Chatfield (Chair)
- Hilary Newiss, FMedSci

#### CGT Catapult Audit Committee members

- Hsin Loke, D.Phil, ACA (Chair)
- Dr Steven Chatfield
- Prof. Sir Bruce Keogh, KBE, FMedSc
- Prof. Angela Thomas, OBE, PhD, FRCPEdin, FRCPath

#### **CGT Catapult Investment Committee members**

- Dr Jim Faulkner (Chair)
- Prof. Uta Griesenbach
- Dr Carolyn Porter
- Matthew Durdy

<sup>\*</sup>Cell and Gene Therapy Catapult is a trading name of Cell Therapy Catapult Limited, registered in England and Wales under company number 07964711, with registered office at 12th Floor Tower Wing, Guy's Hospital, Great Maze Pond, London, SE1 9RT. VAT number 154421433.

### **Current non-executive directors**



**Dr Jim Faulkner** Chair



**Dr Steven Chatfield**Director



**Prof. Uta Griesenbach** Director



Prof. Sir Bruce Keogh, KBE, FMedSci, Director



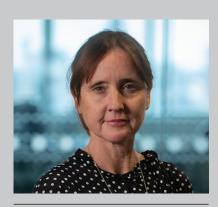
Hsin Loke, D.Phil, ACA Director



**Dr Nicole Mather** Director



Hilary Newiss FMedSci Director



**Dr Carolyn Porter** Director



Prof. Angela Thomas, OBE, PhD, FRCPEdin, FRCPath Director

### Current executive team



Matthew Durdy
Chief Executive



**Dr Jacqueline Barry**Chief Clinical Officer



Philip Brady Chief Financial Officer



Jeanette Evans Chief Business Officer



**Dr Nick Johnson**Chief Strategy & Impact Officer



**Dr Ed Samuel**Chief Operations Officer



**Dr Stephen Ward**Chief Technology Officer

## Thank you to the people and organisations we have worked with over the year, including:

#### **Funders**

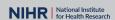
























#### Investment community



## National and international organisations





















#### Researchers and charities







































### National and international companies















































Quell











































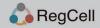


















## Regulators





#### **National Health Service**











### **Advanced Therapy Treatment Centres**









## And we recognise and thank the organisations that worked with the ATTCs















**\**Q√ Queen Mary

Newcastle University



















# Thank you to the organisations we have engaged with and supported with skills and training, including:















































































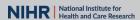


#### **METTLER TOLEDO**



















































































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