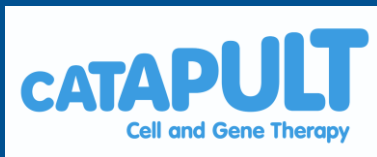


**Driving Innovation through
Talent: Industry Skills
Accelerator for Medicines
Manufacturing**



cpi



Cogent Skills

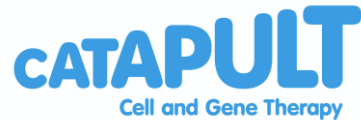


Agenda

- **Introduction to ISA (Steve S)**
 - *CGTC*
 - *CPI*
 - *Cogent*
- **Overview of ISA goals (Louise)**
 - *Outreach (Stephen F)*
 - *Training (Louise)*
 - *Apprenticeships (Steve S)*
- **Link to Resilience (Stephen F)**
- **Close + Q&A (Steve S)**

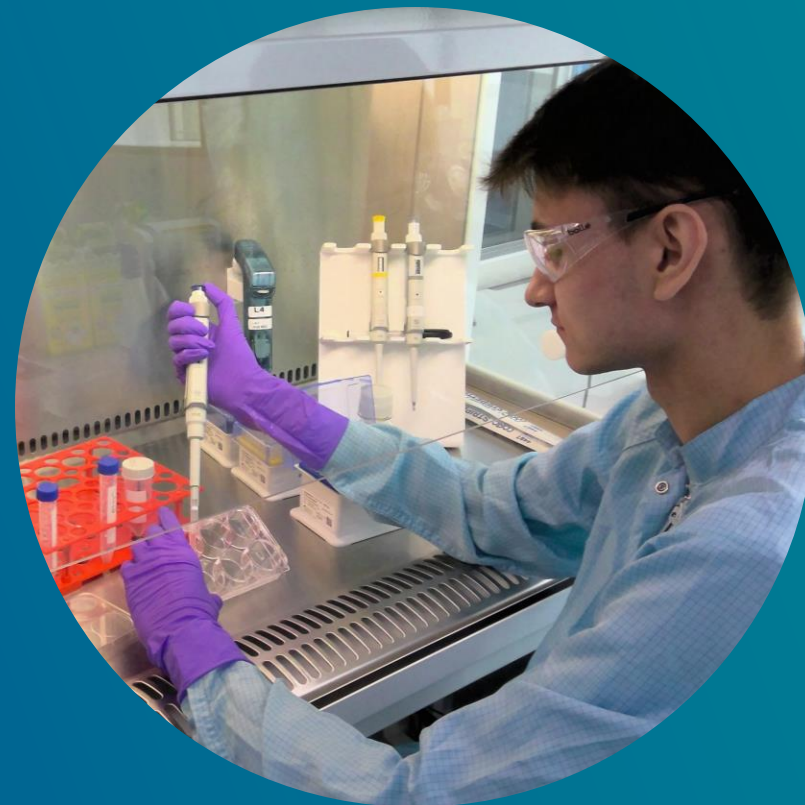
Introduction to Industry Skills Accelerator (ISA)

- The Industry Skills Accelerator (ISA) was established by the Cell and Gene Therapy Catapult, CPI and Cogent Skills to complement the RESILIENCE ecosystem, providing support to apprentices through the Advanced Therapies Apprentice Community (ATAC), developing training on advanced nucleic acid therapeutics, and connecting the SMEs to RESILIENCE training opportunities to enable their growth.



- RESILIENCE is the UK Medicines Manufacturing Skills Centre of Excellence, established with funding from the Office for Life Sciences and managed by Innovate UK. RESILIENCE was established following an open competition to create a national connected infrastructure for skills, training and talent pipeline development for the UK's medicines manufacturing sector

Cell & Gene Therapy Catapult



Who are we?

We are an independent innovation and technology organisation committed to the advancement of cell and gene therapies



Our vision

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



Our role

Create powerful collaborations which overcome the challenges to the advancement of the sector



How we work

We are a team of experts covering all aspects of advanced therapies.

Applying our own unique capabilities and assets, we collaborate with academia, industry and healthcare providers to develop new technology and innovation.

Cell and Gene Therapy Catapult facilities



London

- **1,200m²** purpose built centre located on the 12th floor of Guy's Hospital
- 170+ staff with quality by design and clinical adoption expertise
- ATMP process technology capabilities
- State-of-the-art Technology and Process Innovation laboratories and collaboration laboratory space
- Regulatory, non-clinical and market access knowledge centre



Stevenage

- **7,700m²** facility designed specifically for cell and gene therapy manufacturing innovation at scale
- At the centre of one of Europe's largest cell and gene therapy cluster
- 130+ staff with key skills in biomanufacturing
- 12 segregated cleanroom modules, GMP warehouse and QC
- Established supply chain and unique MHRA licensing model
- Process Analytical Technologies (PAT) Laboratory, Skills and Training Laboratories and collaboration laboratory space



Braintree

- **4,627m²** facility to initially to support national COVID-19 vaccine manufacturing
- 100+ staff with key skills in biomanufacturing
- 3 segregated cleanroom modules, GMP warehouse and QC
- Segregated multipurpose, flexible laboratory area



Edinburgh

- **350m²** facility with high-specification laboratories
- Based in Edinburgh BioQuarter, aligned with academic strength in stem cell research in the North of the UK and the strong CDMO and Pharma services offering in Scotland
- ~10 staff with technical and clinical adoption expertise
- Equipped with manufacturing development and analytical technologies for cell therapies
- Accessible Universal Design Laboratory

UK Nationwide skills and training initiatives building the next-generation GCT workforce



Creating and upskilling exciting careers. The first programme of its kind in the world, using nationally recognised providers to deliver accredited learning to over 350 apprentices at 59 employers



Our virtual and physical training platform has enabled people to onboard and progress their careers. It has global reach and we are working with international organisations such as CATTI to co-design courses and implement international accreditation and standardisation.

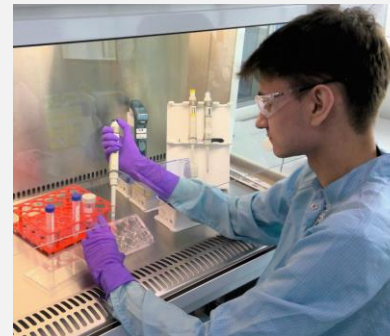


Online Training Platform

Multiple training partners engaged with >2500 learners & >280 companies

Career Converter

Attract talent from adjacent industries



Skills Training Laboratories Stevenage

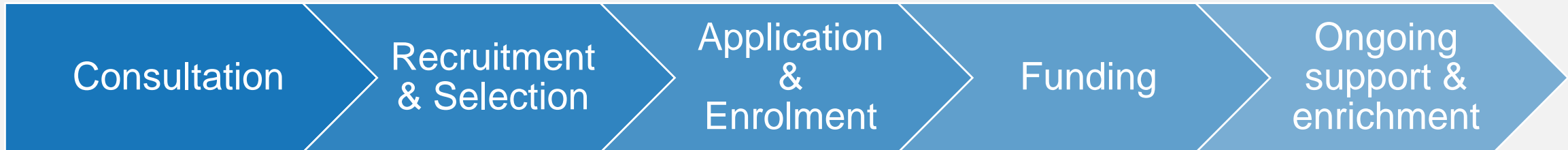
State-of-the-art Skills and Training Laboratories in the heart of Stevenage, UK.



ATAC and ATSTN have been recognised for excellence in training through the Princess Royal Trust.



The double award-winning **Advanced Therapies Apprenticeship Community** is the first apprenticeship programme designed specifically to train and upskill individuals in developing, manufacturing and delivering innovative therapies. ATAC provides bespoke support to all employers depending on their needs, focusing on five areas:



ATAC provides **consultation** for **employers**, to discuss the employer's business and staffing needs and how these may be met through apprenticeships.

If business need cannot be met through ATAC's existing programmes, we provide **impartial advice** on programmes that are available elsewhere. Normally, all we need is a **job description**.

We also explain apprenticeship **funding** and **logistics**.

ATAC support employers with their **recruitment** and **selection** process, everything from uploading your vacancy to the government's apprenticeship portal through to running or attending assessment centres.

We have long-running partnerships with third-party apprentice recruitment services to support us in this aim.



Following successful recruitment of a new apprentice, ATAC will guide the employer and the apprentice through the **enrolment process**. ...

... as with everything that involves government funding, there is quite a lot of bureaucracy to negotiate by both the apprentice and the employer.



ATAC supports employers to set up the **funding** for their apprenticeship, whether they are paying through the apprenticeship levy, aiming to get co-investment funding or looking to apply for the government waiver of apprenticeship fees.



Most importantly, ATAC will support your apprentice through their **apprenticeship journey** through a calendar of **enrichment events** across each academic year. These include networking events, workshops and a series of lunch and learns.

We aim to get the ATAC apprentices together as much as we can, fostering a sense of **camaraderie** and **solidarity**.

← **Microbiology workshop**, held in Stevenage earlier this year.

Total numbers

373

Total ATAC apprentices

115

Successful AT apprenticeship completions

82%

Retention rate (cf ~ for other apprenticeship programmes, <50%)

60
employers



Apprenticeships

Laboratory Technician

Management & Leadership

Technician Scientist

Regulatory

Laboratory Scientist

Support Functions

Online Training Platform (OTP) | Overview

An online portal of training content and resources, dedicated to the needs of the advanced therapies and vaccine manufacturing industry.



Training for every budget

Over 50% of courses are free, whilst those with a cost associated range from £50 to £12,000 for specialist programmes



Different levels of experience

Introductory level content for those new to advanced therapies or in non-scientific roles, as well as intermediary, advanced and specialist level courses to advance your career



Range of delivery formats

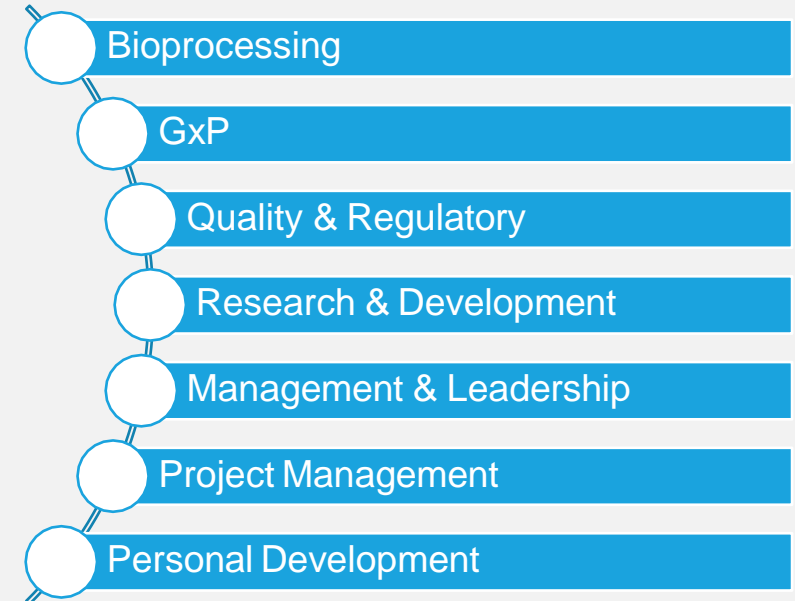
E-Learning, videos, podcasts, webinars, face-to-face, online classrooms, blended learning, programmes and virtual reality.



Durations for convenience

From a bite-sized 5 minute video to 5 day instructor-led practical training and beyond.

Course categories



[Go to website](#)

Online Training Platform | Progress Update



Training Partners

Training specialists | Equipment manufacturers | Universities



CPI



At CPI we help companies to develop, prove, scale up and commercialise new products and processes



Biotechnology



Biotherapeutics



Formulation and materials



Pharmaceutical processing



Photonics



Printed electronics



Flexible hybrid electronics



Digital

...at our state-of-the-art facilities across the United Kingdom

...with our expertise and core capabilities



Home to our national centres of excellence in...

Biologics

Medicines Manufacturing

Formulation

Biotechnology

Electronics

Photonics

Food



Let's innovate together
www.uk-cpi.com



RNA Centre of Excellence

Research and Development

Future optimisation of our RNA-LNP capabilities and improvement of platform process

Early-phase Manufacturing

Platform process for clinical manufacturing up to early phase clinical

Training Academy

Industry CPD accredited training courses from basics to process development





OMICE Capability

Training Academy

Development of new CPD certified training courses from introduction to manufacturing

Manufacturing Innovation

Focus on developing innovative and sustainable manufacturing techniques for oligonucleotides.

GMP Capability

Driving innovation in manufacturing technologies and bridging the gap between R&D and manufacturing

CPI's RNA Training Academy

Unlock the power of your people with our industry-relevant learning courses in RNA and lipid nanoparticle technologies



Content based on real world examples



Delivered by in house scientists



Q&A sessions to ask expert advice



Instructor-led



CPD accredited



Experience driven

Our **advisory committee** ensures the robustness of our training courses and provides a wide breadth of **knowledge and experience**.



Robin Shattock

Professor of Mucosal Infection and Immunity, Imperial College London

Lucy Foley

Chief Technology Officer, Exmoor Pharma.



Dan Bracewell

Professor of Bioprocess Analysis at the UCL Department of Biochemical Engineering.



Jonathan Haigh

Head of UK Site at FUJIFULM Diosynth Biotechnologies

Find us at www.uk-cpi.com/rna-training-academy

RNA Training Academy

Full course catalogue

Catalogue of 5 courses and the option of bespoke courses

Introduction to RNA therapeutics

RNA therapeutics for leaders

Analytical methods for RNA therapeutics

RNA therapeutics manufacturing

Future advances in RNA therapeutics

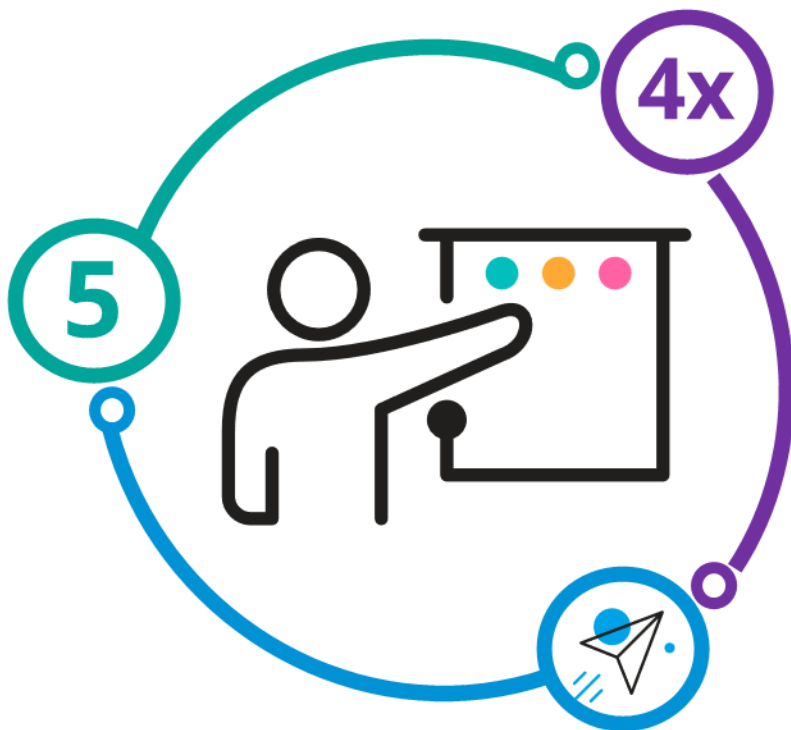
Future expansion

Microbiome

Digital

Oligonucleotides

Regulatory



Leading the UK

Based on our experience and backed by our expert advisory committee.

Certified by **CPD** and approved by **The Royal Society of Chemistry**

On track to increase revenue by 400% in Year 2

'Great content, great presenters, and great networking opportunities, thank you'

'It covers the whole process comprehensively and includes good information on CPI's experience. Especially good for novices or people with experience only in part of the process.'

'I think it is a very good initiative. The course was very well put together and covers the whole process comprehensively.'



ROYAL SOCIETY OF CHEMISTRY

APPROVED TRAINING





Cogent Skills

for science and technology

UT

ABOUT US

> OUR VISION

Skills to better our world.

> MISSION

We are here to ensure Science & Technology employers have the skills needed for success. We influence for the good of our sector, harnessing the power of collaboration, and provide industry-specific skills services to create a safe and productive, future-ready workforce.

> VALUES



1 WE ARE WELCOMING

and inclusive, good things happen when people work for a common goal.



2 WE SPEAK OUT

on the skills issues that matter to our employers. A strong voice is a catalyst for change.



3 WE ARE ENTERPRISING

delivering services that are continually best in class.



3 WE CARE

about our customers, our reputation and our people, operating with integrity.

We are a charitable organisation with a family of commercially focused companies, re-investing our surplus to promote training and education for science and technology industries.

THE SUNDAY TIMES
T Best Places to Work 2024

Cogent Skills can proudly announce that we have been recognised by The Sunday Times as one of the best places to work in the UK in the Best Places to Work: Medium Organisations 2024 category.



WHAT DRIVES US

OUR SECTOR

We're here for the wider science and technology sector, working to support employers in industrial sciences, life sciences, nuclear and low carbon.

WE'RE HERE FOR OUR SECTOR

We are a consistent voice, on the side of employers providing a safe and neutral space for industry collaboration, working for the good of the sector.

WE UNDERSTAND THE SKILLS LANDSCAPE

Our skills policy understanding, careers and vocational skills expertise, labour market and research capability, provides holistic, efficient and employer centric support.

WE BELIEVE EMPLOYER- LED COLLABORATION IS A FORCE FOR GOOD

We bring together employers, building greater industry strength through scale, providing a voice and influence on the skills issues that matter.



OUR OFFERS TO INDUSTRY

NUCLEAR SKILLS DELIVERY GROUP (NSDG)

Cogent Skills Ltd

Cogent Skills is the strategic skills partner to the NSDG – a cross sector group consisting of government departments and leading employers, working together to tackle critical skills challenges within UK nuclear industry.

SCIENCE INDUSTRY PARTNERSHIP (SIP)

Cogent Skills Ltd

Cogent Skills delivers the SIP – a life sciences employer-led alliance that provides ‘one-voice’ to Gov on skills. Services to SIP members include labour market research, apprenticeship policy guidance, careers outreach expertise and representation to Government.

APPRENTICESHIP & GRADUATE SERVICES

Cogent SSC Ltd

Cogent Skills offers apprenticeship training as an Ofsted Grade 2 training provider, covering a range of standards including:

- Science Manufacturing Process Operative
- Science Manufacturing Technician
- Laboratory Technician
- Process Leader

APPRENTICESHIP OUTSOURCED EMPLOYMENT

Cogent Skills Services Ltd

A managed apprenticeship service - known as a Flexi-Job Apprenticeship Agency (FJAA). FJAA’s supply, employ and manage apprentices and place them with ‘host’ employers.

Also providing recruitment, management, and employment of undergraduates and graduates.

NSAN

NSAN

NSAN is a skills for nuclear focussed membership organisation, led by nuclear sector employers, from both civil and defence, to provide valuable, cost-effective and practical skills solutions and guidance.

SIAS

SIAS Ltd

Via SIAS, Cogent Skills provides an Ofqual-recognised End-Point Assessment (EPA) service for science & technical apprenticeships.

TRADE ASSOCIATION OFFER

Cogent Skills Ltd

A skills offering for UK Trade Associations, built around apprenticeship and early careers guidance and skills policy expertise.

REGULATORY COMPLIANCE

Cogent Skills Training Ltd

Cogent Skills provides training and consultancy services for high-hazard, regulated process industries.

Project goals



Project Overview



Complement Resilience Offering

Through addition of complementary courses, networks and collaboration

Expand into Advanced Nucleic Acids

Integration of current catalogue and creation of three new courses

Support Outreach

Market research and outreach focusing on SME's in North-East + Wales

Cogent Offer



To support the digital service offered through RESILIENCE we will engage with SMEs (Small and Medium Enterprises) and micro businesses in the medicines manufacturing ecosystem.

We will promote the full range of support available for the development and manufacture of future and emerging therapies, by building a strong and sustainable national employer and training network.

Key Deliverables

01

60 Referrals

02

23 Meetings

03

2 Regional Cluster/Networking Groups

04

2 Research Focus Groups

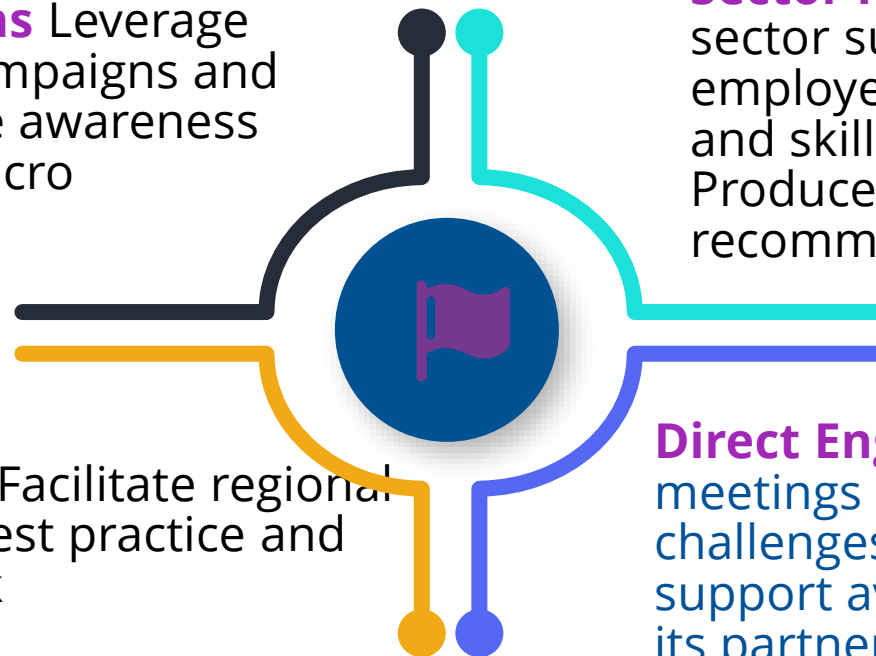
05

2 Research Reports

Outreach Strategy

Targeted Campaigns Leverage digital marketing campaigns and social media to raise awareness among SMEs and micro businesses.

Regional Meetings Facilitate regional meetings to share best practice and build sector network



Sector Research Design tailored sector survey and research with employers to understand challenges and skills needs faced by SMEs. Produce two industry reports with recommendations.

Direct Engagement: Arrange one-on-one meetings to understand specific challenges and offer the full menu of skills support available through RESILIENCE and its partners, Catapult, CPI, and Cogent Skills.

What is involved

8. What are your organisations key workforce skills priorities?

9. Where are the most critical skills gaps in your organisations and industry as a whole?

- R&D
- Production
- QC/QA
- Regulatory Affairs
- New Technologies
- Data
- HR
- Commercial

10. What specific skills are necessary for you to stay competitive?

11. What technical skills are necessary for the company's future growth?

12. What technological innovations should the company focus on in the next 5-10years?

Contact

Contact Stephen Foreman:

Stephen.foreman@cogentskills.com

07850773876

Training

Three new courses to be created:

- RNA design and optimisation
- An introduction to Oligonucleotide Therapeutics
- Manufacturing of Oligonucleotide Therapeutics

Utilise our expertise to support transition of Oligos into clinics and pharmaceutical products

Expand Course Offering

Following the framework established in Resilience

Create content and practical sessions for schools and colleges

Support STEM activities and promote the wider Resilience resources, primarily focusing in the North-east and Scotland

Integrate into Schools Curriculum

Hosted and self-paced training packages to enable further accessibility

Dissemination of offering

Future pipeline of courses to be influenced by feedback from Cogent and Resilience

System + Outreach

Industry Skills Accelerator CGTC Apprenticeship Deliverables

1

Create a **Manufacturing/ Production** route for apprenticeships in Medicines
Manufacturing focus on early talent & technician

2

Create a **Quality** route for apprenticeships in Medicines
Manufacturing focus on upskilling existing workers

3

Create a **Digital & Automation** route for apprenticeships in Medicines
Manufacturing for upskilling & early talent

4

Create apprenticeships pathways in new **Medicine Modalities** working with CPI

Industry Skills Accelerator (ISA)

The Industry Skills Accelerator (ISA) was established in August 2024 by the Cell and Gene Therapy Catapult, CPI and Cogent Skills to complement the RESILIENCE ecosystem, providing support to apprentices through the Advanced Therapies Apprentice Community (ATAC), developing training on advanced nucleic acid therapeutics, and connecting the SMEs to RESILIENCE training opportunities to enable their growth.

Apprentice Pathways

Level / Discipline	3	4	5	6	7
Production / Manufacturing	<p>Science Manufacturing Technician</p>	<p>Process Leader</p> <p>Automation and Controls Technician</p>		<p>Science Industry Plant and Process Engineer</p>	<p>Process Automation Engineer</p>
Quality		<p>Quality Practitioner</p>	<p>Senior Quality Practitioner (Withdrawn)</p>		<p>Qualified Person (Proposal)</p>
Digital & Automation	<p>Data Citizen</p>	<p>Data Analyst</p>	<p>Data Engineer</p>	<p>Robotics Engineer</p> <p>Data Scientist (Integrated Degree)</p>	<p>Advanced Robotics Engineer</p> <p>AI Data Specialist</p>

Link to Resilience



Thank you

For more information please contact:

I think we agreed to put Cogent as contact to direct enquiries. Tina please can you add the best route?