

# BRING YOUR CGT CANDIDATES FARTHER, FASTER

Advances in technology have reached an inflection point, and cell and gene therapies are taking off. You need a proven partner who can expertly support your research breakthrough, while transcending expectations at every phase of development.

[Learn More](#)

## INCREASING CHALLENGES

### Rise above the uncertainty and complexity of development

#### SCALING UP

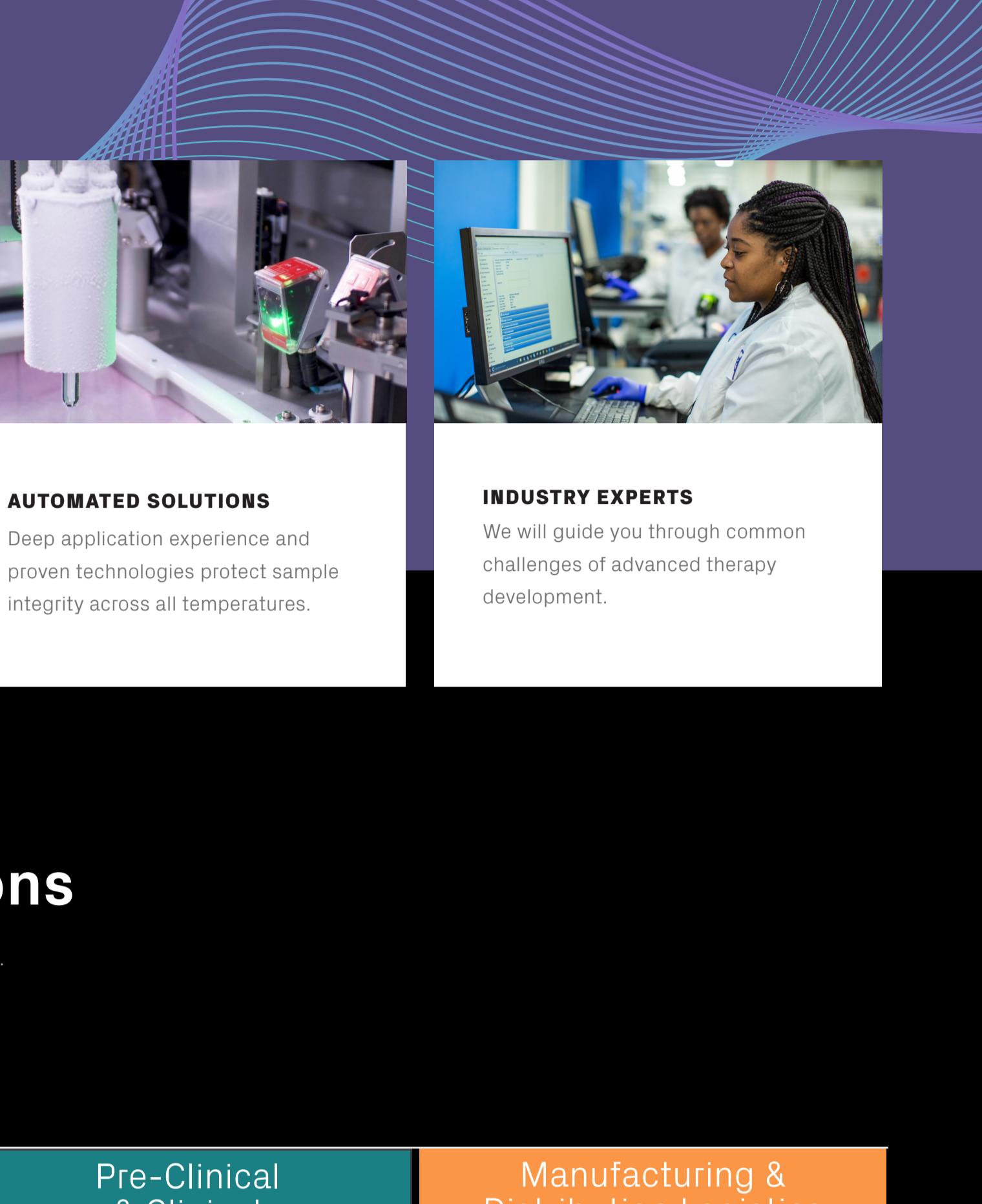
Rigor and reproducibility are essential as therapies advance toward approval.

#### PROTOCOL AMBIGUITY

Inadequately defined protocols for emerging and existing therapies can lead to roadblocks.

#### SAMPLE MANAGEMENT

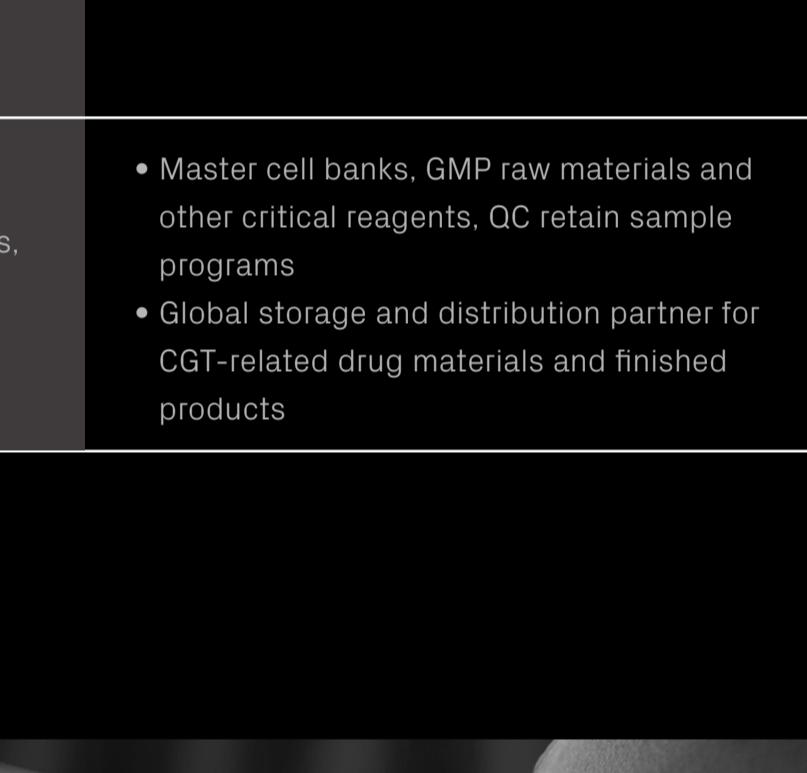
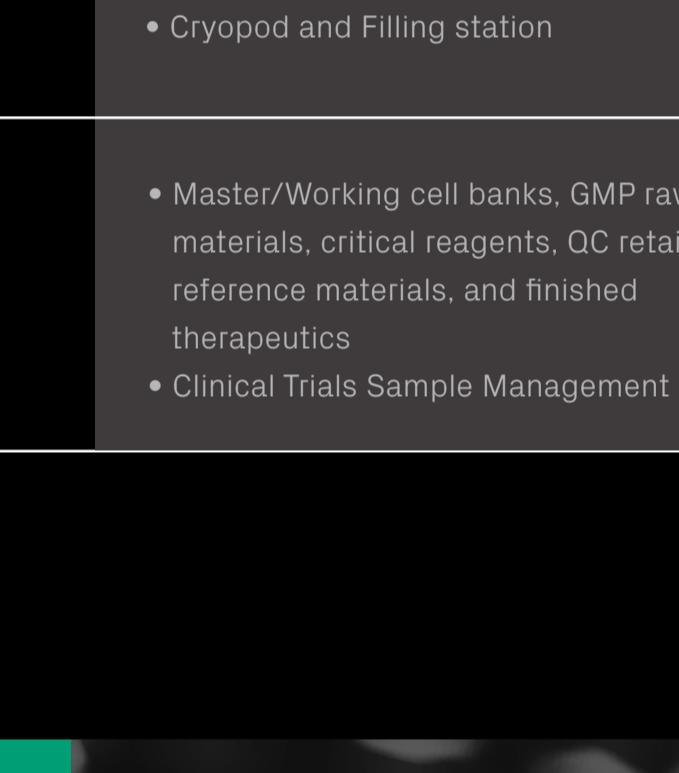
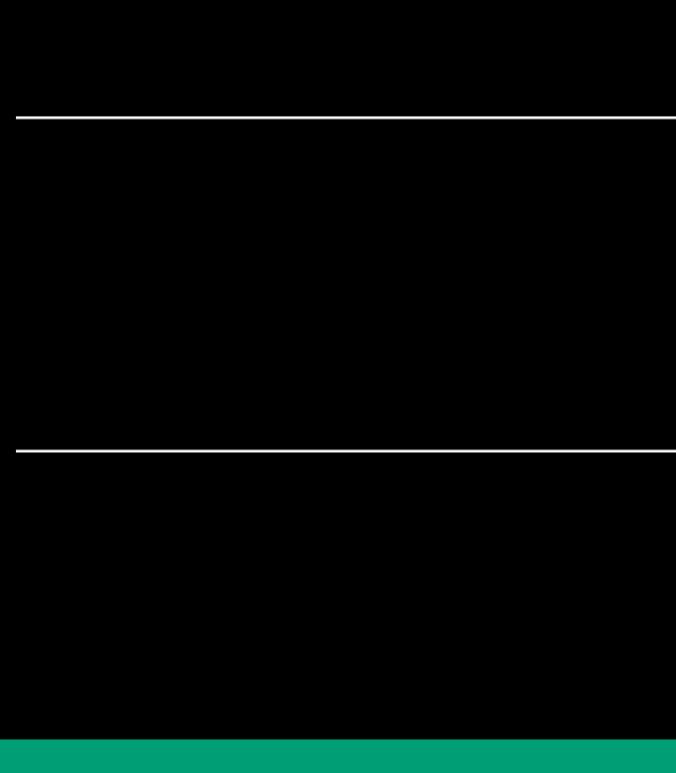
Cold chain logistics and storage challenges complicate clinical trials and manufacturing.



## ELEVATE YOUR SCIENCE

### Transcend expectations

Azenta Life Sciences can help you address these challenges proactively. We have the infrastructure, technologies, and expertise to help you mitigate risk while accelerating development.



### Preparing for scalable CGT solutions

Azenta Life Sciences provides a comprehensive range of solutions across every phase of CGT development.

We'll support the rigor of your program all the way from target discovery through scale-out.

	Discovery	Pre-Clinical & Clinical	Manufacturing & Distribution Logistics
Next-Generation Sequencing	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Target Discovery</li> <li>Lead Generation &amp; Characterization</li> </ul> <p>• Transcriptome analysis with RNA-seq (bulk or single-cell)</p> <p>• Whole AAV genome sequencing (short- and long-read technologies for AAV or lentivirus)</p>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Vector &amp; Cell Bank Confirmation</li> <li>Clinical Trial Management</li> </ul> <p>• Transcriptome analysis with RNA-seq bulk (RUO/CLIA) or single-cell (RUO)</p> <p>• Whole AAV genome sequencing (short- and long-read technologies for AAV or lentivirus)</p>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Logistics &amp; Distribution Scale-up</li> <li>Therapeutics Management</li> </ul>
Synthetic DNA Solutions	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Gene synthesis and viral production bundle (lentivirus, baculovirus)</li> <li>AAV Gene Synthesis (fragments, cloned products)</li> <li>AAV Plasmid Preparation (RUO)</li> <li>CRISPR Synthetic DNA Solutions</li> </ul>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>AAV Gene Synthesis (fragments, cloned products; pre-clinical)</li> </ul>	
Sanger-based Sequencing	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>AAV-ITR Sanger Sequencing (RUO)</li> </ul>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>AAV-ITR Sanger Sequencing (RUO, GLP)</li> </ul>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>AAV-ITR Sanger Sequencing (GLP)</li> </ul>
Automated Storage and Cold Chain Products	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Labware and benchtop cold chain instruments</li> <li>Informatics and Data Management solutions</li> </ul>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>21-CFR-11 Data and reporting solutions</li> <li>Automated cryogenic storage and transport</li> <li>Cryopod and Filling station</li> </ul>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>21-CFR-11 Data and reporting solutions</li> <li>Automated cryogenic storage and transport</li> </ul>
Sample and Material Storage Solutions		<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Master/Working cell banks, GMP raw materials, critical reagents, QC retains, reference materials, and finished therapeutics</li> <li>Clinical Trials Sample Management</li> </ul>	<p><b>SEE MORE</b></p> <ul style="list-style-type: none"> <li>Master cell banks, GMP raw materials and other critical reagents, QC retain sample programs</li> <li>Global storage and distribution partner for CGT-related drug materials and finished products</li> </ul>

## REDEFINE WHAT'S POSSIBLE

### Discovery

The shortest route to a breakthrough is rarely a straight line. Azenta's technologies, innovations, and proprietary protocols give you an extra dimension of agility to sequence and confidently characterize your products.

#### TARGET DISCOVERY

Analyze disease samples to find mutations, then validate targets.

**Services include:** RNA Sequencing, Mutation Analysis, Oligo Synthesis, and Cell Line Engineering Confirmation.

#### LEAD GENERATION & OPTIMIZATION

Identify and refine leads; test leads and delivery mechanisms for efficacy.

**Services include:** RNA sequencing, CRISPR Validation Services, gRNA Construct Synthesis, AAV-ITR Sanger sequencing, Whole AAV Genome Sequencing, and Synthetic DNA Solutions [Gene synthesis & viral production bundle (lentivirus, baculovirus)].

### AAV Genomics Solutions

Azenta has developed a suite of proprietary genomics protocols for working with the complexities of AAV.

#### AAV GENOMICS PROTOCOLS

As a global leader in genomics services, Azenta has developed unique AAV-ITR sequencing, AAV plasmid synthesis, and AAV plasmid preparation capabilities to support scientists in their *in vivo* gene therapy research. Azenta's groundbreaking AAV services also include sequence verification and correction of inverted terminal repeat (ITR) regions, which are crucial for rAAV packaging production.

[View Service](#)

#### AAV GENOMICS SERVICES

AAV-ITR Sanger Sequencing

AAV Plasmid Preparation

AAV Plasmid Synthesis

AAV Genome Sequencing

## EXCEED IMPOSSIBLE STANDARDS

### Manufacturing & Distribution

Support the integrity of your breakthrough cure from scale-up to scale-out to patient with the most advanced cold chain logistics, automated tools, onsite, offsite, and hybrid services.

#### LOGISTICS AND DISTRIBUTION SCALE-UP

Leverage modular, scalable automated cryogenic storage systems to seamlessly support manufacturing and distribution scale-up, with integrated data management and reporting plus full audit trail tracking.

**Solutions Include:** BioStore Cryogenic Automated Storage System.

#### THERAPEUTICS MANAGEMENT

Flexible pharmaceutical cold chain logistics and distribution solutions to safeguard the integrity and quality of your drug products, critical reagents, and raw materials, while meeting cGMP and regulatory requirements.

**Services Include:** Drug Products and Cell Therapies.

[View Solutions](#)

#### Risk Mitigation

#### Process Control

#### Data & Reporting

Empower your team to transcend expectations at <https://web.azenta.com/cell-and-gene-therapy>

[Learn More](#)