Accelerating the culture cure
Faster up-skilling, re-skilling and keep-skilling, in Cell and Gene Therapy.
Towards a faster, more efficient talent marketplace

Which sectors are hit hardest by capability gaps?

First, find the talent

Today is the right time to start

About Accenture
Cell and Gene Therapy (CGT) organizations will need to reimagine their talent strategy if they wish to compete with and leapfrog competitors.

Here’s how they’ll get there.
Today, we’re seeing advances in CGT that have led to measurable progress in the fight against cancer, neurogenerative and other disease, with stem-cell research at the forefront of these efforts. By many estimates, there are more than 1,000 active CGT clinical trials being held across a range of modalities, targeting a variety of diseases around the world. It’s a rapidly growing sector.

CGT is a complex business, requiring people with specific skills and capabilities that are in short supply. Whereas the traditional life sciences drug development and commercialization model is largely designed around small molecules and biologics, the value chain for CGT is different. The technical complexity of gene therapy, the need for speed and the differences between development, manufacturing, and commercialization require new, specialized capabilities to support innovation and drive growth.

Given the potential of CGT to significantly improve patient outcomes, it’s important to understand the current barriers preventing meaningful scientific breakthrough. To do this, we embarked on a survey of 200 US-based, cross-sector CGT leaders from companies of all sizes. Participants included business unit and supply chain heads, as well as heads of HR, commercial, R&D and training. The results provided insights and perspective on the fundamental challenges for CGT (such as the scarcity of skilled talent with specific capabilities) and helped provide answers to three key considerations:

1. Where are the biggest capability gaps and what CGT domains are most affected?
2. What are CGT companies doing to address talent and capability challenges?
3. How can CGT address the talent dilemma and leapfrog competitors?
Example

CAR-T manufacturing capability bottleneck

Capability gaps in CGT have created bottlenecks that hinder potentially revolutionary treatments from reaching the patients who need them. Case in point are the CAR-T manufacturing woes that continue to play out for the first wave of CAR-T therapies. In fact, 51% of respondents reported that they are facing a skills and talent shortage. And in the case of courier/distribution, the number jumps to 73%.

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Which sectors are hit hardest by capability gaps?

The Cell and Gene Therapy sector continues to face talent shortages—with no sign of relief. Our research showed that 96% of biopharma respondents believe that the challenge will remain to some extent in the future.

The talent crunch is also having some of its biggest impacts on courier, distribution and contract manufacturing firms who believe a lack of focus on key talent makes them more vulnerable to having their staff poached. R&D, manufacturing and operations are also among the functions experiencing a significant talent shortage. Unfortunately, our survey showed that things are not expected to improve in the short term. 60% of respondents overall believe that the same challenge will remain to some extent, and that demand for talent will always outstrip supply. The majority of organizations are concerned that failing to focus on talent will result in an inability to meet customer demands. In turn, this will result in an increased need to rely on technology as well as accepting above average staff turnover. It’s a perfect, growing storm of challenges.

CGT culture is fast moving, and it can be difficult for talent to keep up and gain the skills needed to scale. Additionally, there is increased pressure on companies to retain existing talent, which is often lured away by competing organizations with offers of better benefits, improved employee experiences and opportunities for growth. Indeed, our survey showed that poaching of talent has become a key tactic in the current battle for skilled workers (Figure 1).

Figure 1. What do you believe companies can expect the future of cell and gene therapy talent to look like?
The industry has so far deployed traditional levers to locate the talent it needs, so poaching of talent has been a key tactic across the industry with some more than others. Our data shows that biotech gets their talent from competitors 38% of the time, whereas biopharma relies on finding CGT talent internally from other functions 66% of the time. 76% of biopharma respondents believe competitors are poaching their talent. (Figure 2)

Other measures being used to attract and retain talent include flexible work hours, fast-track development models and more training. In addition, many organizations are using increased mentoring, more team-based working and technology to equip their talent with the tools they need to be proficient in their roles. 57% overall, but 66% specifically in biotech, have also increased staff benefits to bring in or keep their workforce. According to our survey, the top three ways biopharma companies are trying to maintain their skill levels are: staff motivation, increasing benefits and flexible work hours.

While these approaches can be effective, they can also represent a costly solution to retaining talent in the long run. It’s important to acknowledge that an employee’s motivation to stay often goes beyond benefits and can lean more toward emotionally driven considerations. With 75% of the workforce set to be millennial by 2025, there are additional factors such as: feeling valued, having a sense of purpose and creating impact in the work being performed. Organizations tend to lose top talent unless their workers can identify with and feel connected to the company’s purpose.
As CGT companies struggle to find and retain talent with specific capabilities, they can protect themselves by documenting the processes that create their institutional knowledge. This protection will reduce the risks to their organization if an individual leaves. The effort is functional and will bring consistency and predictability in execution.

We believe the solution is a tradeoff between choices that an organization makes to not only acquire, but also retain the required talent to achieve operational excellence. Business and HR leaders can make choices along three dimensions of the organization:

- **What** work needs to be performed and how is it different from traditional work?
- **Who** has the right skillset and experience?
- **Where** can we find the workforce we need?
- **Where** can specific CGT work be performed in the workplace?

The organization’s support structure will influence the choices business and HR leaders make and influence the desired behavior.

Underpinned by the organization’s support structure, these options are a critical part of the integrated set of three choices that are necessary to successfully guide future actions. Choices in type of work, the workforce, and the workplace are interrelated. Choices made in one dimension will likely have consequences in the other two dimensions. Therefore, leaders will need to generate a variety of pairs and then ask about each:

- Can it be linked in order to properly execute the type of work we need for CGT?
- Do we currently have the workforce necessary to execute the work needed and can they be reasonably managed?
- Can we create the organization workplace setup that would support the procurement and engagement of the workforce we need?

It is important to recognize the implications resulting from how and where work will be performed.
Identifying workforce choices requires a mindset shift from linear supply-demand talent models to a dynamic and constantly learning talent ecosystem, or as many refer to it, a talent marketplace.

A talent marketplace is a dynamic ecosystem that creates a win-win for workers as well as their organizations. Driven by AI, it dynamically helps identify what workers want to learn, as well as what the organization needs from a talent and skills perspective and matches the two together. At the same time, it continuously assesses the choice pairs, learns and adapts to constantly shifting skill and workplace requirements across the business, well before the gaps become obvious. This improves the overall worker experience by activating their personal skill development and career aspirations and giving the company impressively clear visibility of its requirements, so it can deploy skills across the organization with great precision.

Towards a faster, more efficient talent marketplace
Employees at a global pharmaceutical company had little clarity around career options and how to align their aspirations with the company’s formal approach to career management. This hindered employee engagement, satisfaction, and retention, resulting in highly valuable skills walking out the door. In addition, the company struggled to identify what skills they really had and how to deploy them when and where needed.

With over 100,000 employees the company realized traditional methods would be insufficient to address this problem. They were introduced to the talent marketplace concept and decided to adopt this AI-driven platform and approach.

With this internal talent marketplace, employees are now able to uniquely curate career paths based on their skills and interests. The organization, aided by additional talent analytics, can now help identify hidden skills and rapidly redeploy those skills to areas most critical to the business when and where needed, all while aligning with employees’ career aspirations. This has helped create improved talent attraction and retention, increasing the speed of work solutions, while helping reduce the costs of turnover.

Example

A dynamic talent marketplace in action
Using this model, talent can be sourced both internally and externally, as the talent marketplace matches and connects workers with work options and skill development opportunities, based on their aspirations. It helps provide companies with clarity to assess choice tradeoffs around skill demand requirements and skill supply, as well as the ability to deploy specialized skills where and when needed, while helping improve recruiting and talent costs.

This helps create a more desirable workplace culture: less is spent on acquiring talent, there’s less bias, increased speed of delivery and the workforce is more capable and engaged and are less likely to leave for opportunities elsewhere.

The talent marketplace and AI-based talent platform work together to bring talent workforce strategy, planning, analytics, digital and automation together to help gain a competitive edge over other employers for talent.

The success of CGT is dependent on a workforce with skills in scientific, bioprocessing and technical skills such as bioinformatics, machine learning, and data analytics (Figure 3). To attract talent in this scarce environment, we believe that companies should start thinking beyond traditional approaches, to engage in the broader ecosystem of the talent marketplace.

**What is an Open Talent Network?**

An open talent network (OTN) strategy provides additional workforce choices that are not available with a closed talent strategy. In this model, organizations can orchestrate a range of workforce options that reimagine workplaces, from more traditional co-located sites, to those that are completely distributed and dependent on virtual interactions. Developing and leveraging a robust OTN strategy will support a remote and/or virtual workforce that pairs well with situations where work can be performed remotely. We believe that those who do adopt this approach can help enable improved access to critical talent.
Talent marketplace and platform strategies accelerate a collaborative and digitally enabled approach to sourcing the right talent. It is a dynamic model that goes across organizational and geographical boundaries to access talent across a continuum of sources, helping draw in the required skills with agility. It changes the traditional model of full-time, career employees to one that encompasses a mix of internal employees, collaborators, contractors, managed service providers, gig workers, freelancers, crowdsourcing and on occasion, even customers.

**Figure 3.** Which, if any, of the following can have an impact on the cell and gene therapy skills development within the business?

- Increased use of machine learning and automation tools at biotechs
- Investment in other technology areas
- Greater collaboration across the business
- Greater collaboration across the supply chain
- (Additional) use of AI

80% increased use of machine learning and automation tools at biotechs
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Because it’s a relatively young sector, the workforce is not strictly defined. Firms and academic researchers are struggling to find experienced qualified talent with knowledge of regulations, Good Manufacturing Practices (GMP), and commercialization. While CGT is uniquely positioned to offer excitement, originality and a desirable, exclusive skillset, it requires a workforce with highly specialized skills. So there are, of course, barriers to entry.

This fast-paced, young industry needs a workforce that is ready for it. As the sector matures and continues to thrive, it stands to reason that more candidates will want to pursue careers in this space.

As we approach more innovation within CGT, there is increasing excitement around the potential to radically improve patient outcomes. To get there, companies will be required to approach their talent strategy differently, by helping create a culture that attracts skilled workers, identifies potential in untapped talent pools and focuses on developing and retaining people across the talent economy.

A talent marketplace strategy could facilitate the redefinition of workplaces and provide additional workforce choices that are not available with a closed talent strategy.

For instance, many of the manufacturing roles require physical proximity for people to get work done. Thankfully, the advent of collaboration platforms, digital communication, and exponential technologies such as augmented reality and virtual reality is helping organizations redefine workplaces and create opportunities for more distributed teams to thrive. Organizations can create a range of workforce options and reimagined workplaces, that are completely distributed and dependent on virtual interactions.

Developing a robust AI strategy will enable a remote and/or virtual workforce. The talent marketplace can, therefore, be an important step for CGT organizations with the compressed talent pipeline.

We believe that those who adopt this approach will enjoy an improvement in their access to critical talent.
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