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INSIGHT REPORT

Predictive Talent Dynamics - April 2023

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Executive Summary

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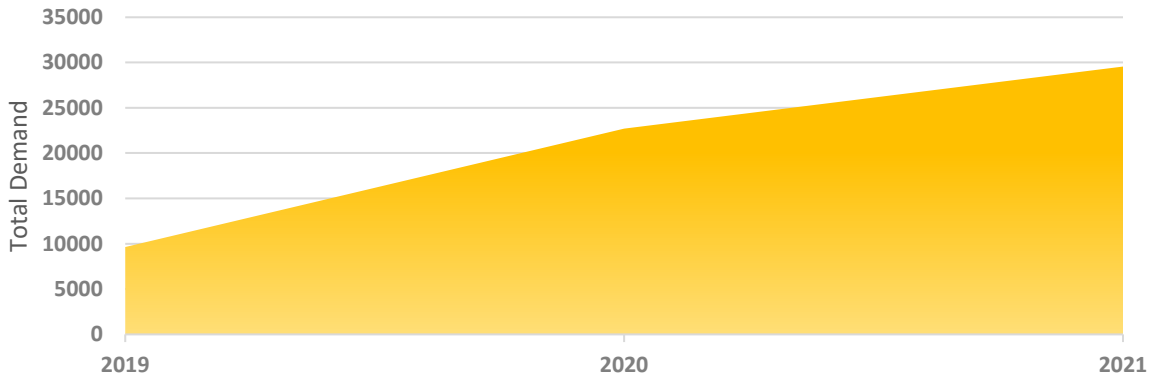
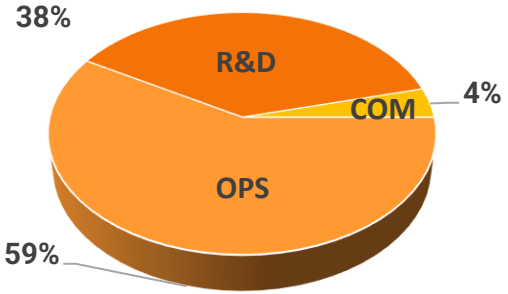
C&GT Hiring: Yearly Average



Role Postings: By Role Type



Top 3 Companies:

Largest ***Annual*** Talent Demand Increase

Normalised versus employee no.

REGENXBIO

Sangamo THERAPEUTICS

Sana Biotechnology

2022

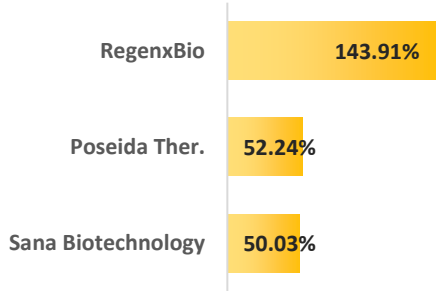
Monthly ***Hiring Demand*** Change

▲ +23.9%

Top 3 Companies:

Largest ***Monthly*** Talent Demand Increase

Normalised versus employee no.



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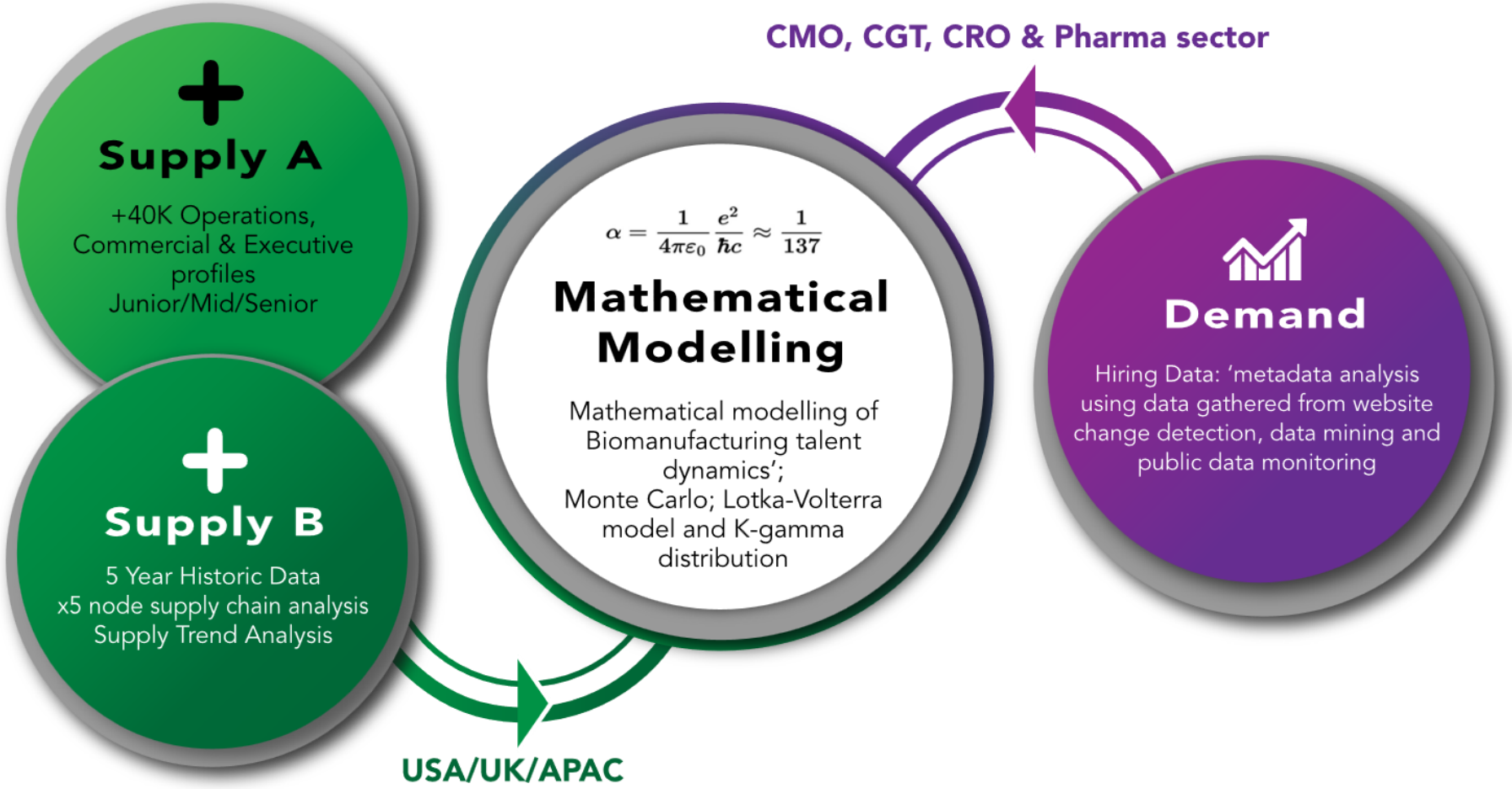
Introduction and Methodology

Introduction & Methodology



Insight Report

Aim

To measure, model and predict 'supply versus demand' of Biomanufacturing talent across the global **CMO, CGT** and **Pharma** sectors.

Research Partners

Evolution Search Partners; **University of Dundee**; **University College London (UCL)**

Purpose

To provide analytical strategic intelligence to industry leadership to allow future facing workforce planning, aligned to support capital expansion project decisions, recognising the value of human assets in the economic success of the firm.

The outcome data aims to allow specific planning, where required, on creative talent acquisition, specific to segments of biomanufacturing workflows

Short Term

There is evidence that the bioprocessing sector is experiencing operational and staffing problems directly related to an increase in activity and demand. All sectors are experiencing an increase in R&D, manufacturing & production, with a shifting of resources towards responding to the pandemic Most bioprocessing-related industrial activities are considered 'essential' and continue largely unaffected in terms of operations and output, while many are planning to ramp-up R&D and manufacturing. While there are many near-term changes in onsite staff management, broader business plans are generally not affected in the near-term.

Long Term

Specific to Biomanufacturing talent, CMO and Pharma companies can no longer wait to develop talent strategies. They already have job openings they cannot fill, and the gap is widening as megatrends disrupt and transform biomanufacturing. Adopting talent management programs and processes will help manufacturers attract and retain workers with the desired skill sets. This is a challenge that requires flexibility and insight. And the stakes are high. Manufacturers with an engaged and skilled workforce will be more likely to enjoy a successful and sustainable future.

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Industry Sub Sector

Industry Sub-Sector

10 | By Job Number – MTD /QTD/ YTD (Normalised)

14 | Average Total Job Number - MTD /QTD/ YTD / 2-YTD

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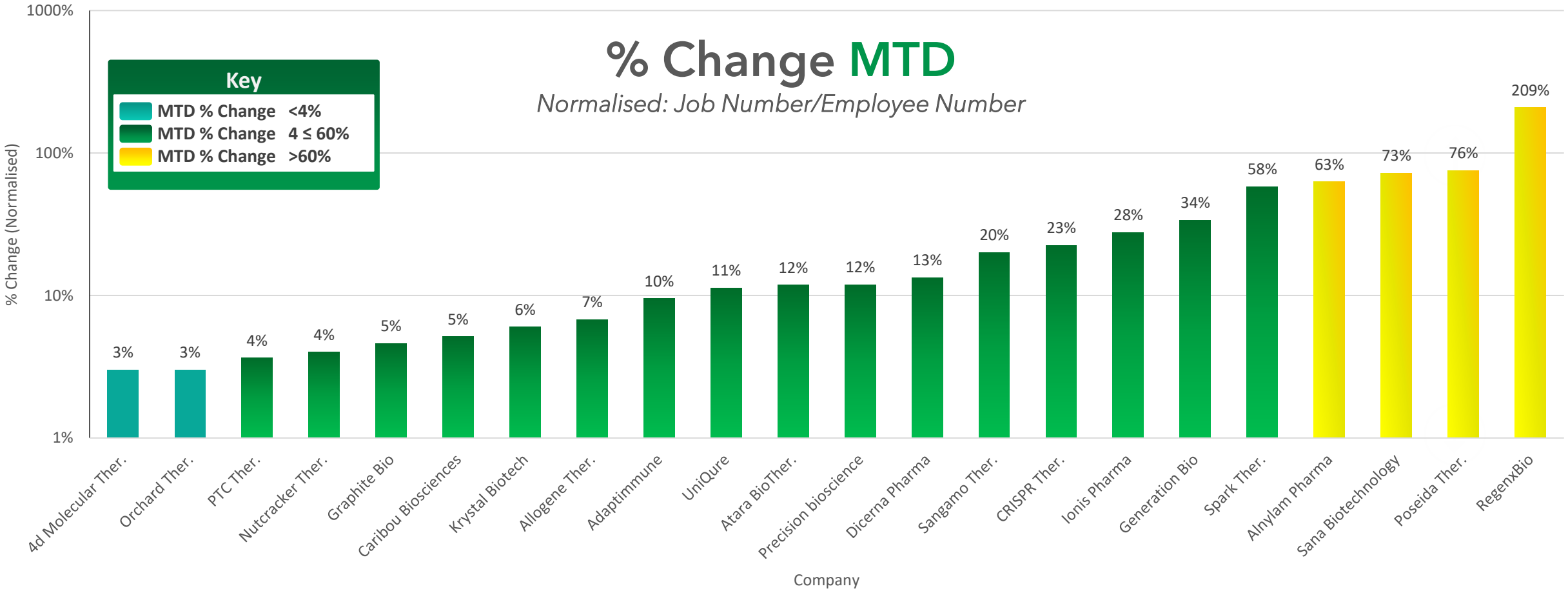
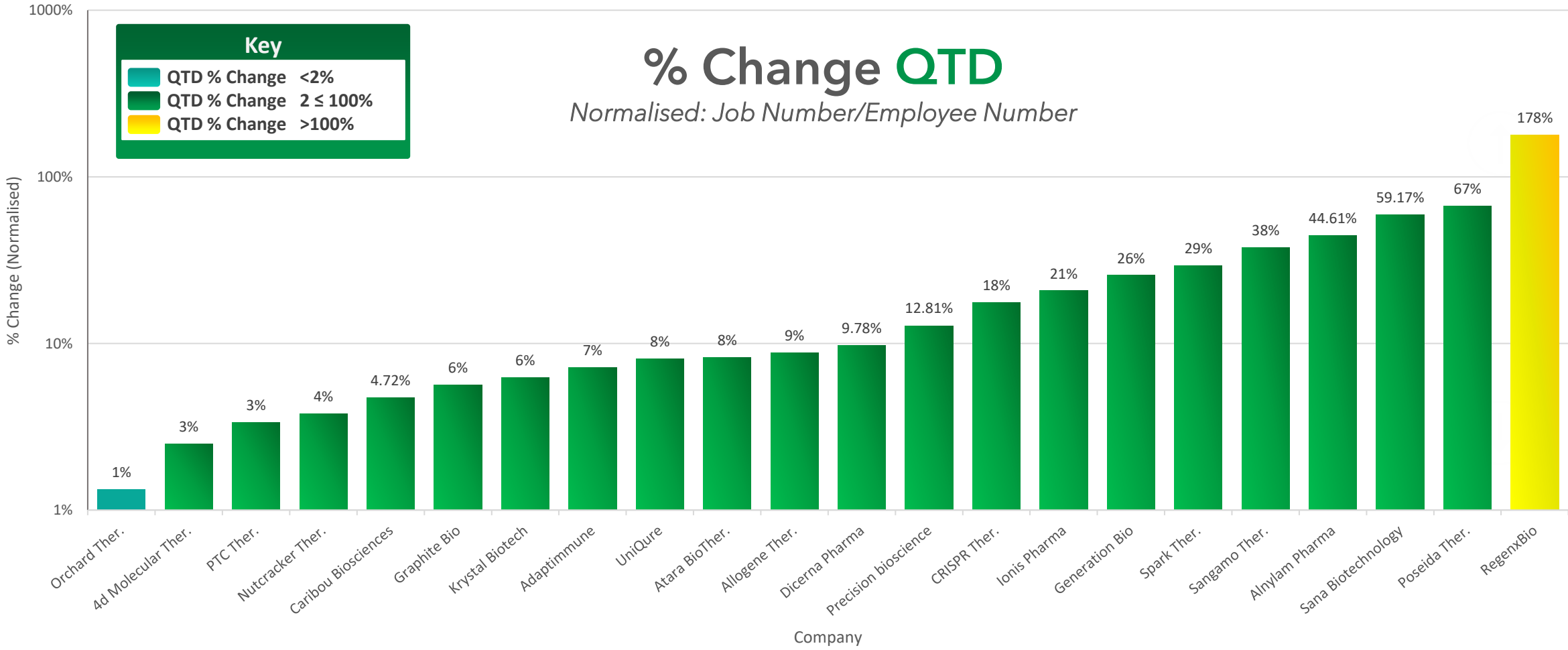
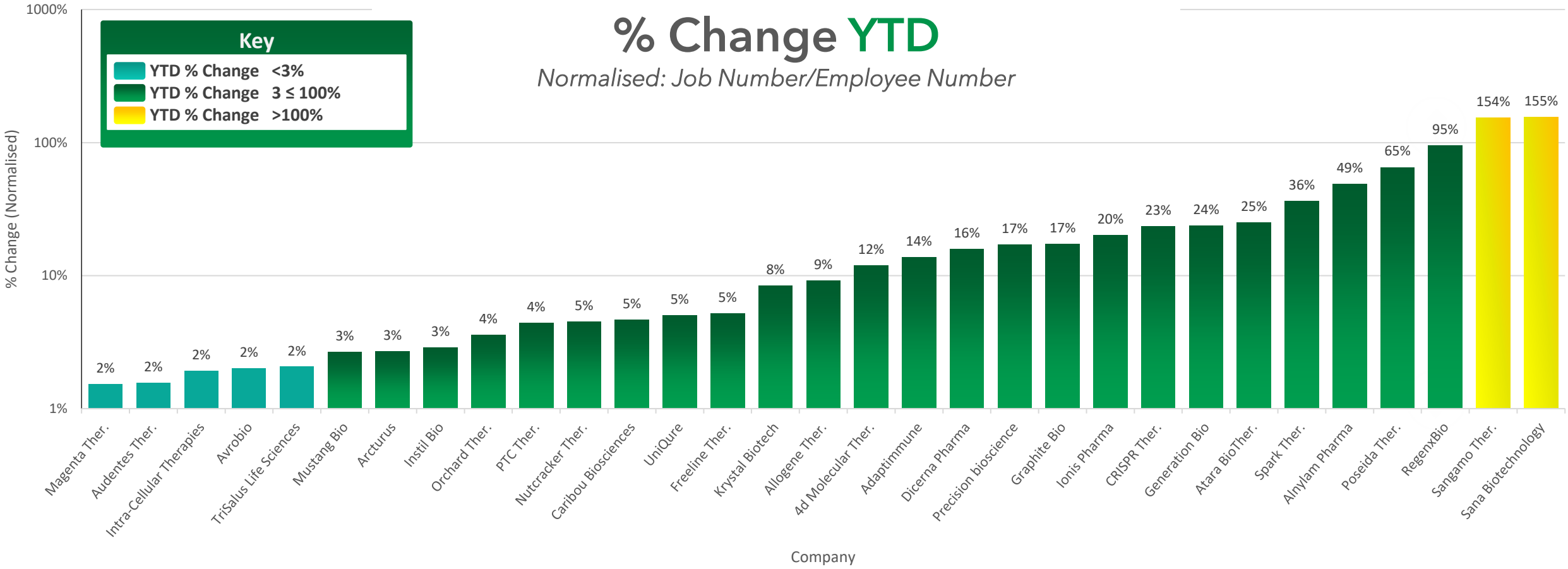
Assessment of Hiring Frequency by Job Number *(Normalised)*

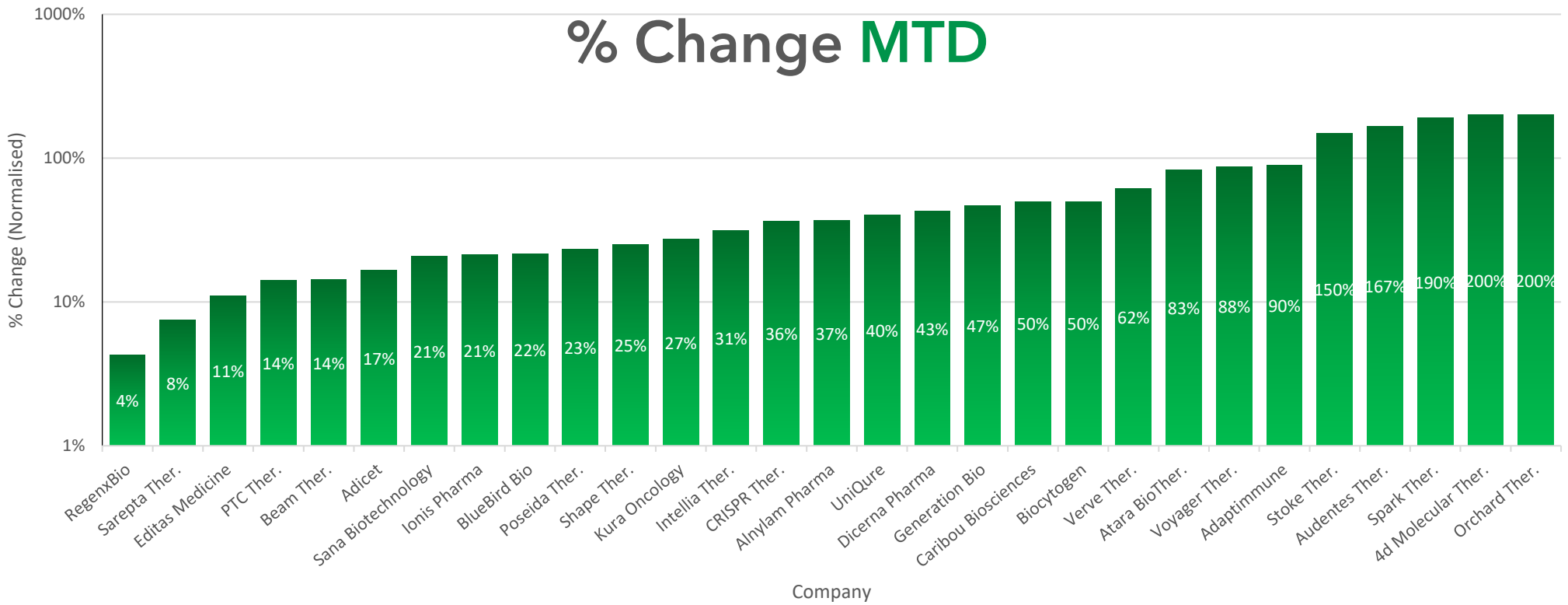

% Change MTD
Normalised: Job Number/Employee Number
Key
MTD % Change <4%
MTD % Change 4 ≤ 60%
MTD % Change >60%
% Change (Normalised)
1000%
100%
10%
1%
3%
3%
4%
4%
5%
5%
6%
7%
10%
11%
12%
12%
13%
20%
23%
28%
34%
58%
63%
73%
76%
209%
4d Molecular Ther.
Orchard Ther.
PTC Ther.
Nutcracker Ther.
Graphite Bio
Caribou Biosciences
Krystal Biotech
Allogene Ther.
Adaptimmune
UniQure
Atara BioTher.
Precision bioscience
Dicerna Pharma
Sangamo Ther.
CRISPR Ther.
Ionis Pharma
Generation Bio
Spark Ther.
Alnylam Pharma
Sana Biotechnology
Poseida Ther.
RegenxBio
Company


Key
QTD % Change <2%
QTD % Change 2 ≤ 100%
QTD % Change >100%
% Change QTD
Normalised: Job Number/Employee Number
% Change (Normalised)
1000%
100%
10%
1%
1%
3%
3%
4%
4.72%
6%
6%
7%
8%
8%
9%
9.78%
12.81%
18%
21%
26%
29%
38%
44.61%
59.17%
67%
178%
Orchard Ther.
4d Molecular Ther.
PTC Ther.
Nutcracker Ther.
Caribou Biosciences
Graphite Bio
Krystal Biotech
Adaptimmune
UniQure
Atara BioTher.
Allogene Ther.
Dicerna Pharma
Precision bioscience
CRISPR Ther.
Ionis Pharma
Generation Bio
Spark Ther.
Sangamo Ther.
Alnylam Pharma
Sana Biotechnology
Poseida Ther.
RegenxBio
Company

% Change YTD

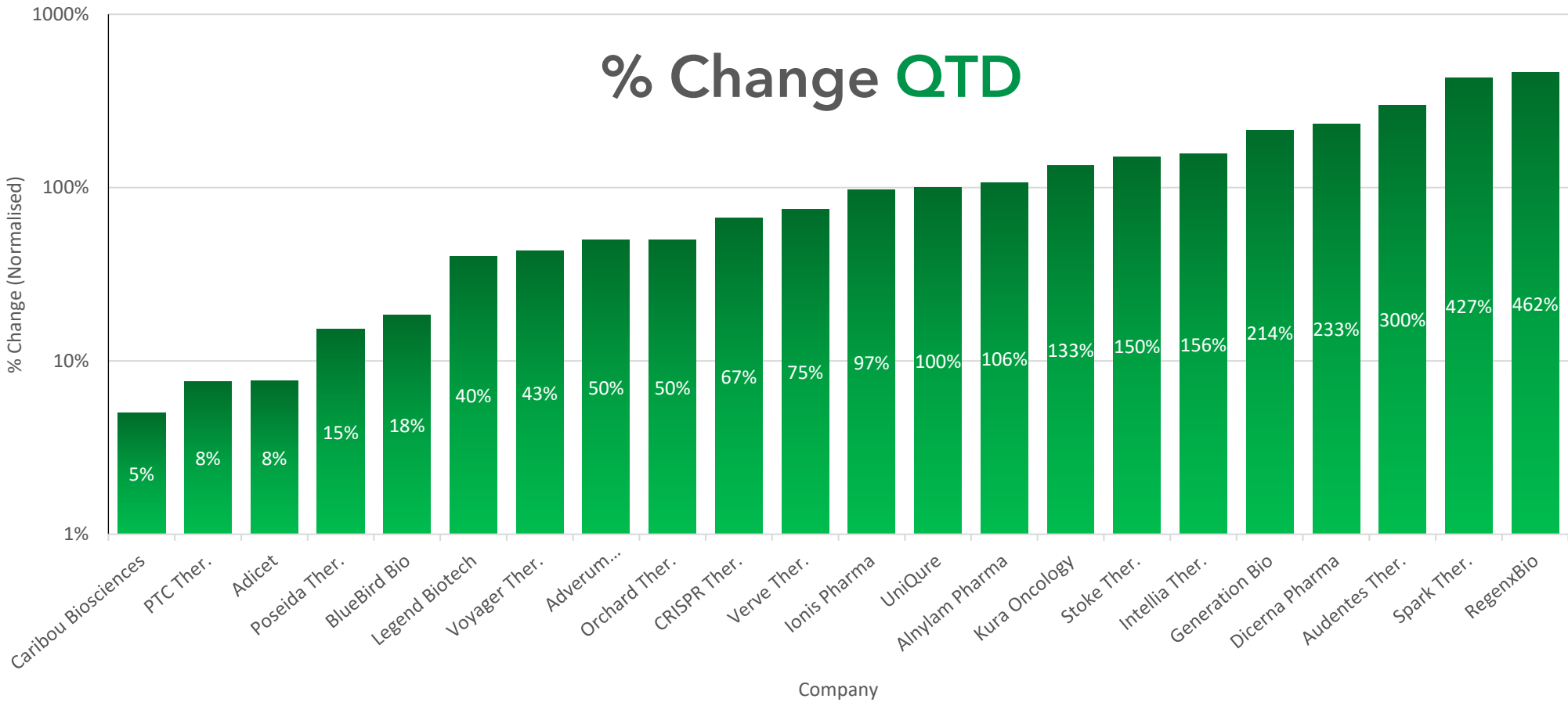
Normalised: Job Number/Employee Number





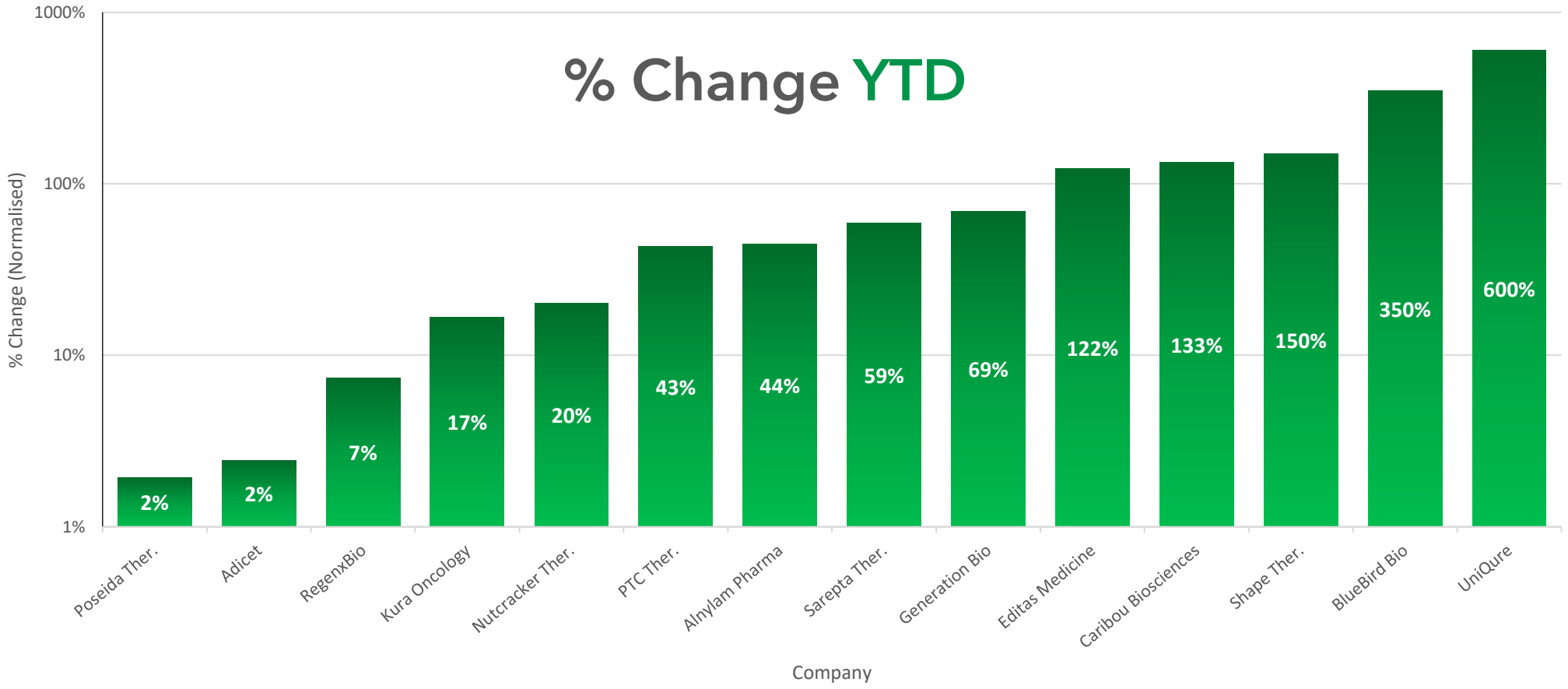
Spark Ther.
Orchard Ther.
4d Molecular Ther.

TriSalus Life Sciences
Talaris Ther.
Sangamo Ther.



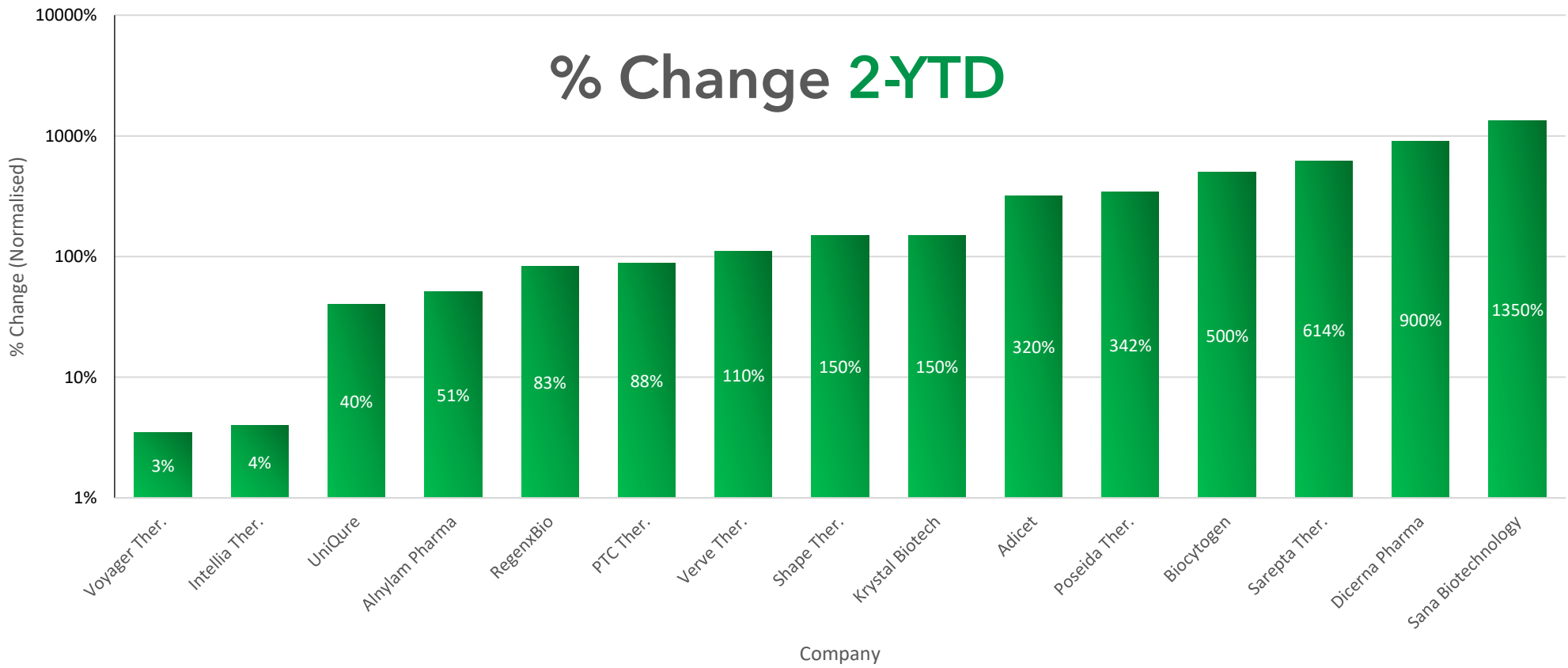
RegenxBio
Spark Ther.
Audentes Ther.

Sirnaomics
TriSalus Life Sciences
Talaris Ther.



UniQure
BlueBird Bio
Shape Ther.

Sirnaomics
TriSalus Life Sciences
Talaris Ther.



Sarepta Ther.
Dicerna Pharma
Sana Biotechnology

Abeona Ther.
Avrobio
Arcturus

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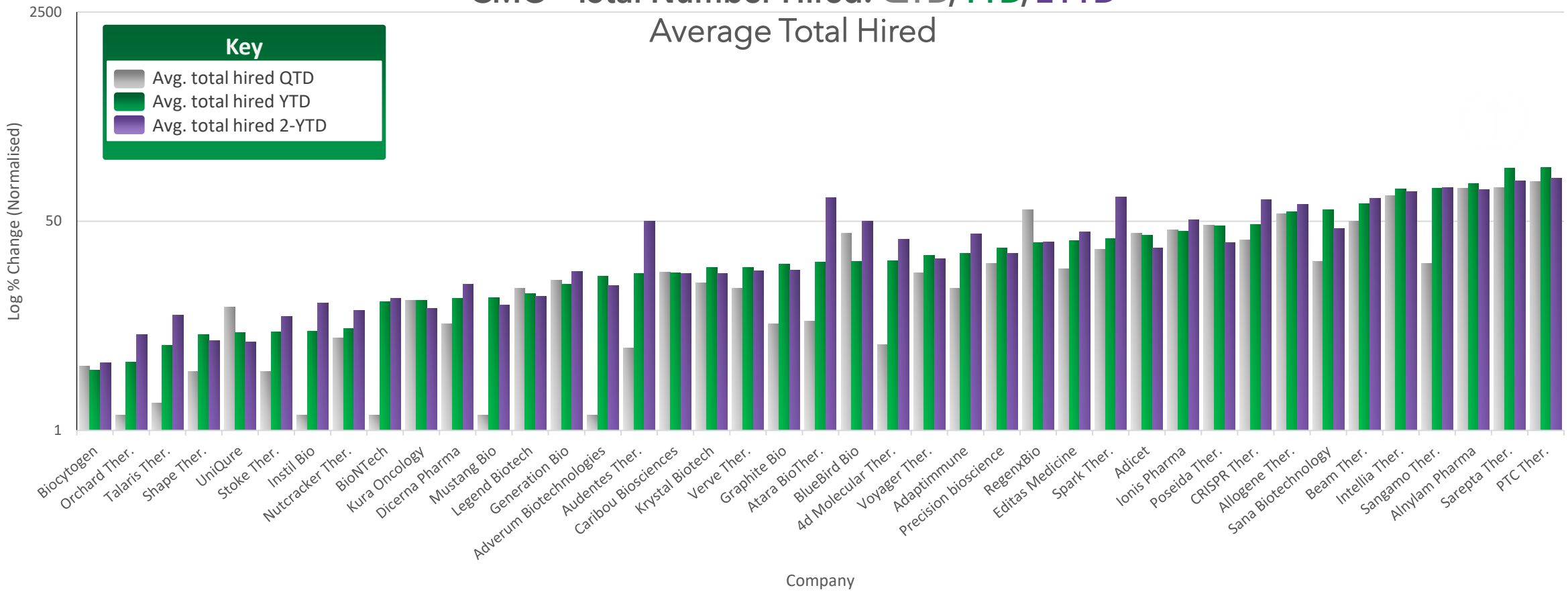
Assessment of Hiring Frequency by Job Number *(Average)*

CMO - Total Number Hired: QTD, YTD, 2YTD



CMO - Total Number Hired: QTD, YTD, 2YTD

Key

- Avg. total hired QTD
- Avg. total hired YTD
- Avg. total hired 2-YTD

PTC Therapeutics

Largest increase **across QTD, YTD, 2YTD.**

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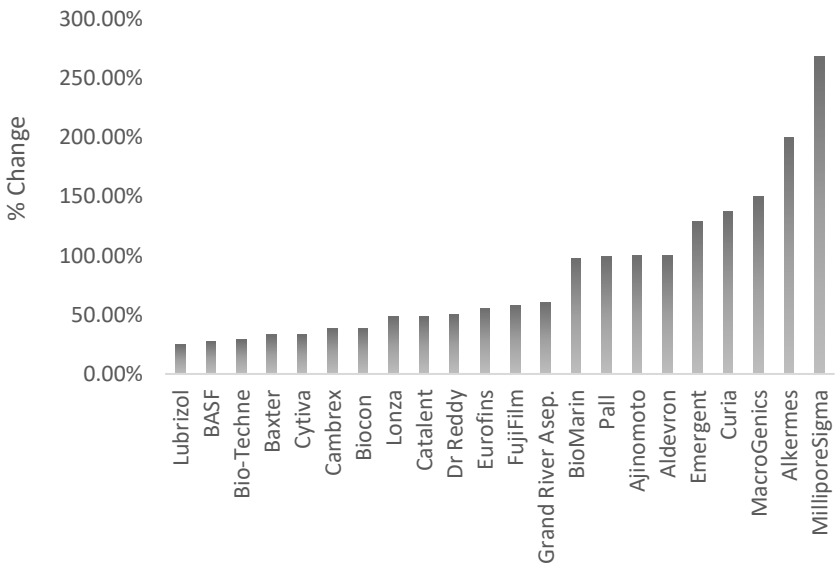
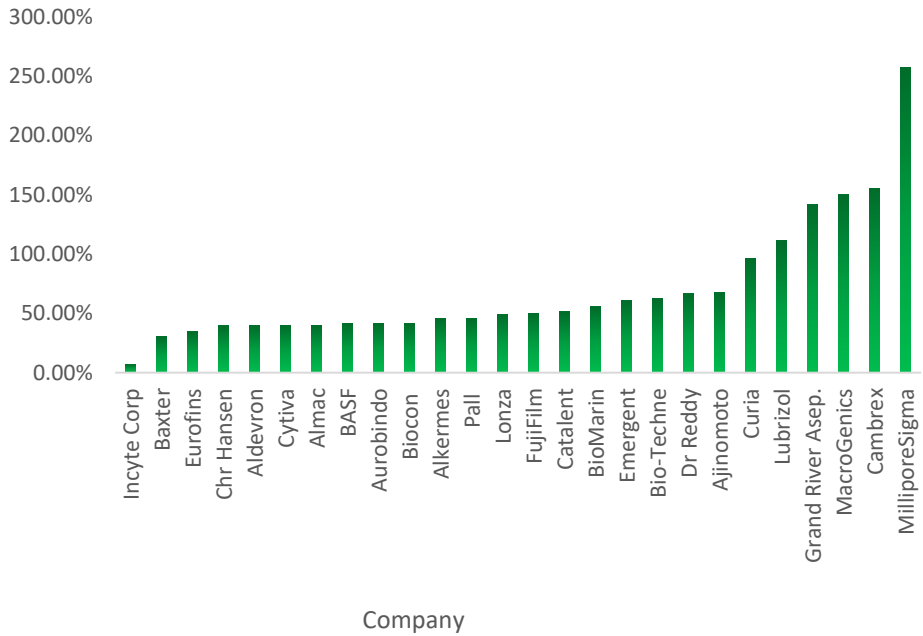
Assessment of Hiring Frequency by *Job Type*

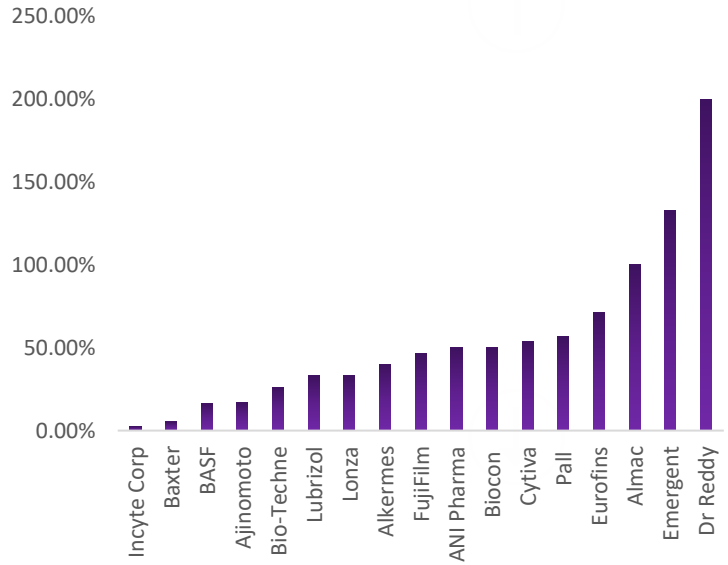
R&D



Operations



Commercial



OVERALL CELL & GENE THERAPY by Job Type

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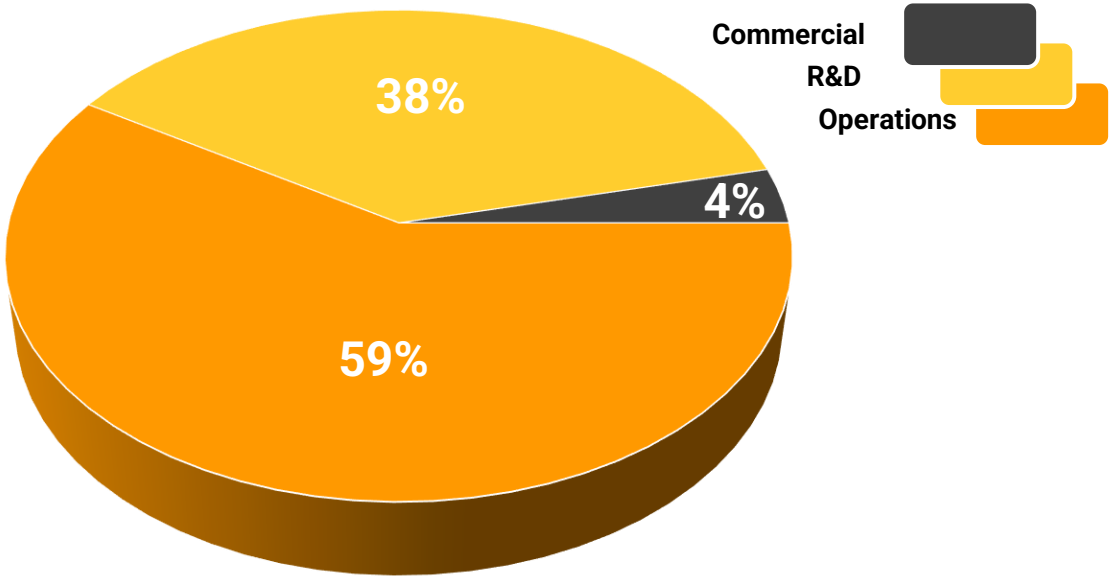
Breakdown of Roles Postings



YTD (Increasing)

Commercial:

Ionis Phar.

Operations:

Adicet
Alnylam Phar.

R&D:

Voyager Ther.
PTC Ther.

MTD (Increasing)

Commercial:

Adaptimmune
BlueBird Bio

Operations:

Sana Bio
Orchard Therapeutics

R&D:

Spark Therapeutics
Adicet

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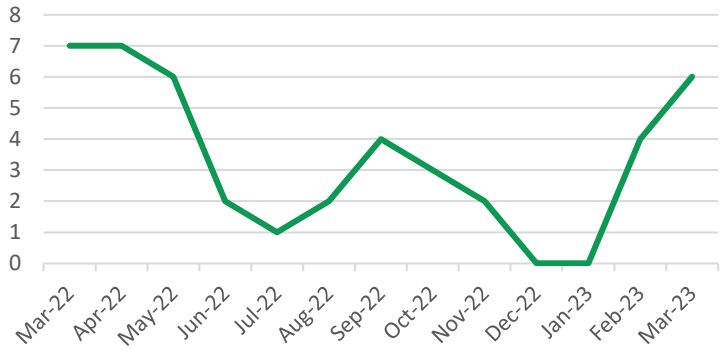
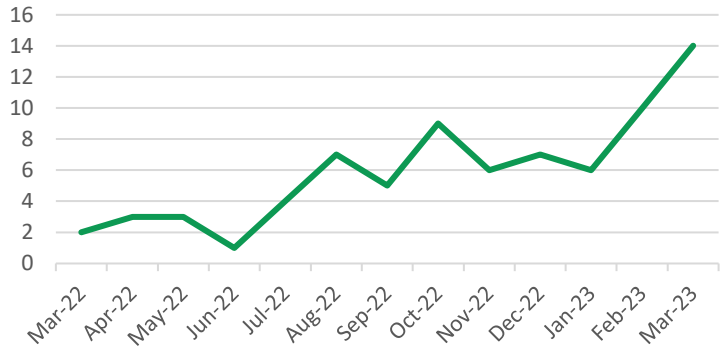
Data Summary – Monthly Hiring Industry Insight

INCREASING

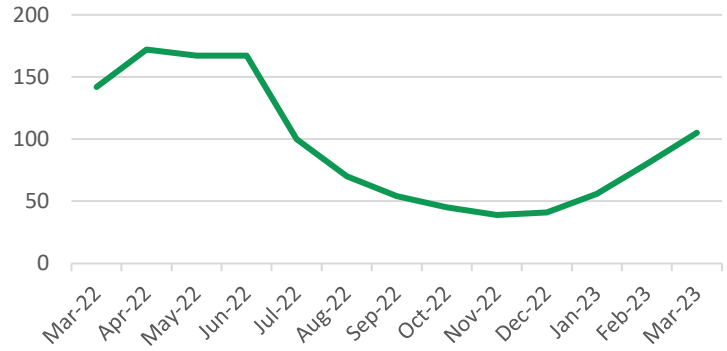
Biocytogen



UniQure

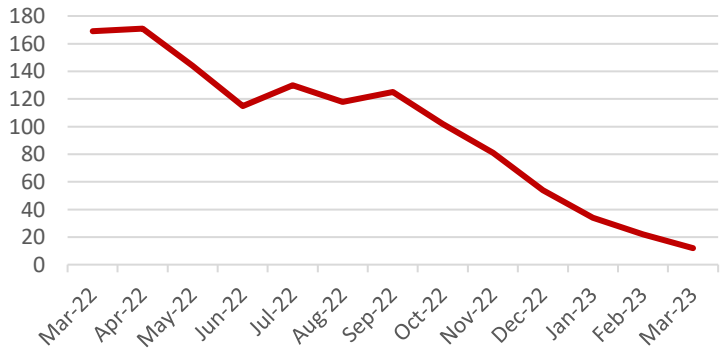


Intellia Ther.

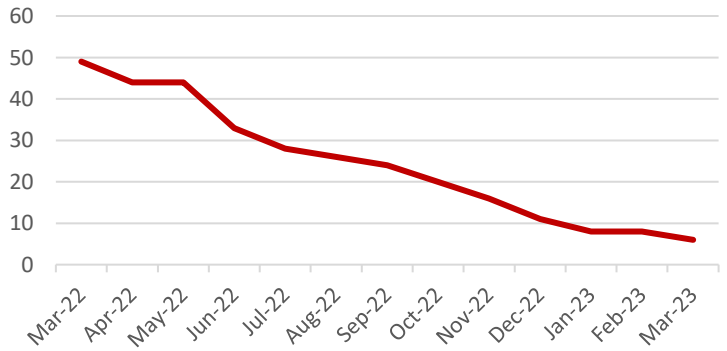


DECREASING

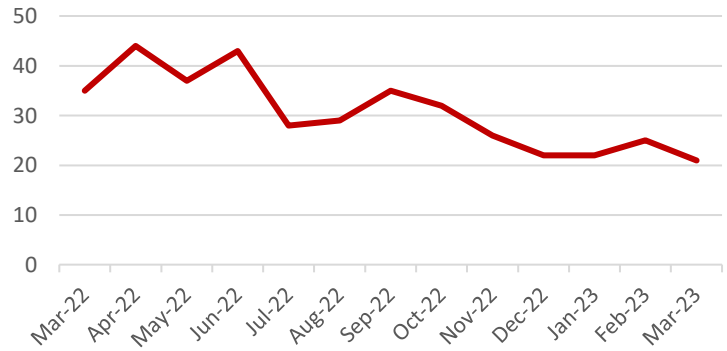
Sangamo Ther.



Graphite Bio



Precision bioscience



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Market Drivers

- Regenxbio receives fda fast track designation for rgx-202, a novel gene therapy candidate for the treatment of duchenne muscular dystrophy
- Regenxbio opens gene therapy manufacturing facility at its Maryland HQ

- This has been a year [2022] marked by progress across our pipeline. In the third quarter, we continued to advance our clinical trials and preclinical activities
- Pfizer and Sangamo Therapeutics announce phase 3 trial of investigational gene therapy for hemophilia a has re-opened recruitment

- Expect cash runway into 2025, enabling multiple data readouts across platforms for lead programs, driven by significant cash savings from manufacturing facility move to Bothell, Washington as well as research prioritization

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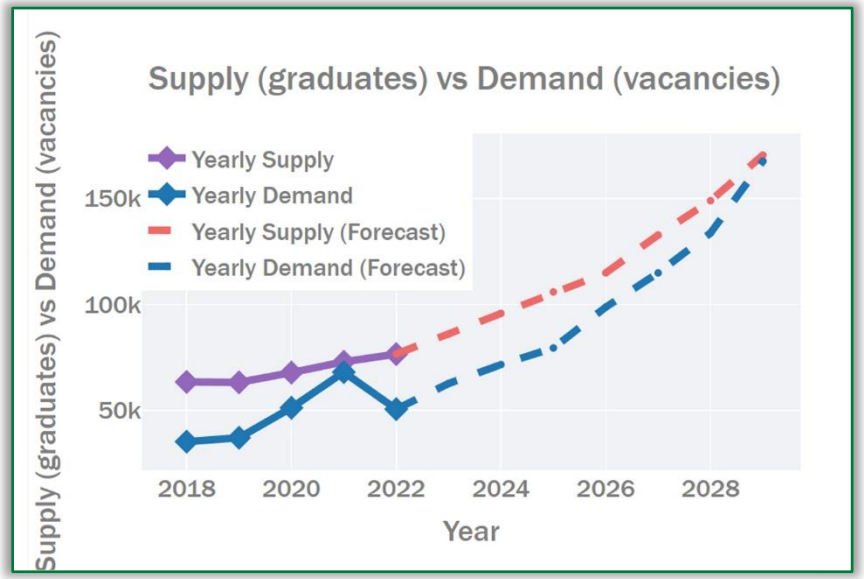
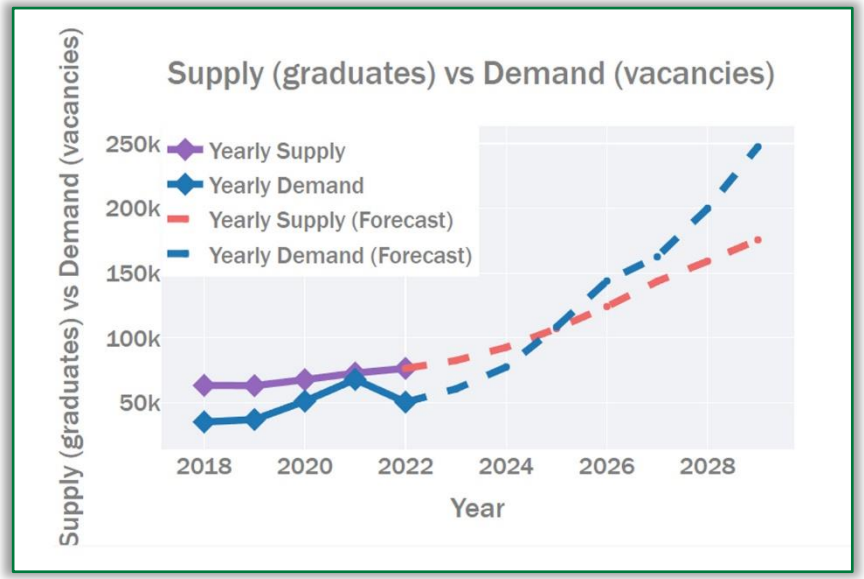
Predictive Talent Market Dynamics

Various models presented below exemplify the 'Supply versus Demand' market growth assumptions:





USA Biomanufacturing Supply versus Demand modelling. Various market growth options. Talent Supply presented at 10% growth (median over 12 years); Talent Demand growth projected at 10% (left) and 20% (right) respectively. Intersecting lines illustrate where talent demand and supply are in equilibrium (Evolution, 2022). Supply refers to number of graduates and post-graduates entering Biomanufacturing industry; demand specific to Biomanufacturing job vacancies.