



EVOLUTION

SEARCH PARTNERS

INSIGHT REPORT

Predictive Talent Dynamics – April 2023

Table of contents

- 03. | Executive Summary
- 05. | Introduction & Methodology
- 08. | Industry Sub Sector
- 28. | Predictive Talent Market Dynamics



A microscopic view of several blue, spherical cells, likely yeast or bacteria, in a petri dish. The cells are arranged in a cluster, with some showing budding or division. The background is dark, and the cells are illuminated from above, creating a soft glow.

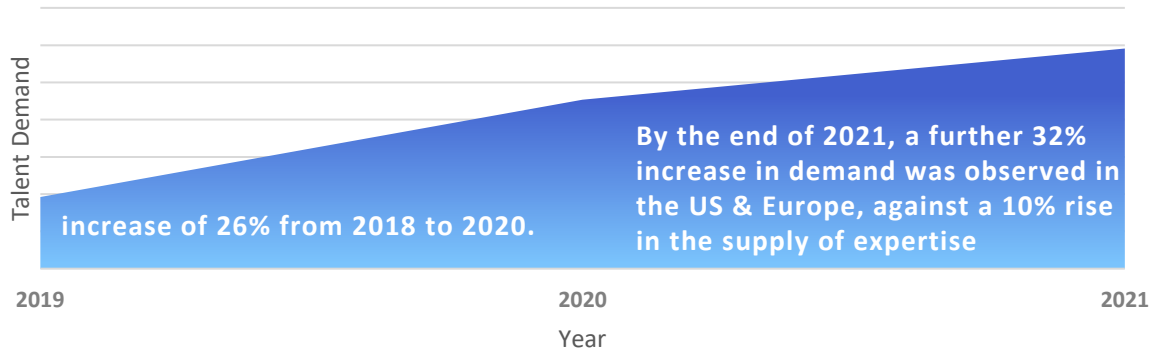
EVOLUTION

SEARCH PARTNERS

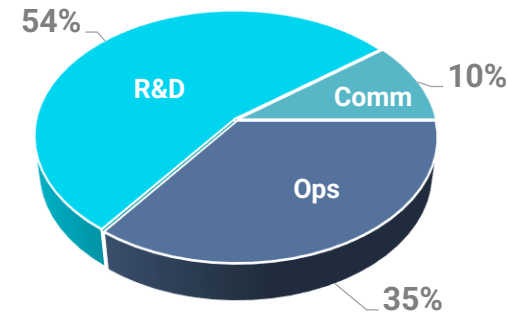
CDMO

Executive Summary

Biomanufacturing Hiring:- Yearly Average



**Role Postings:
By Role Type**



Top 3 Companies:

Largest **Annual** Talent Demand Increase
Normalised versus employee no.

WACKER

AVID
BIOSERVICES

SUTRO
BIOPHARMA



2022

Monthly **Hiring Demand** Change

▼ -4.6%

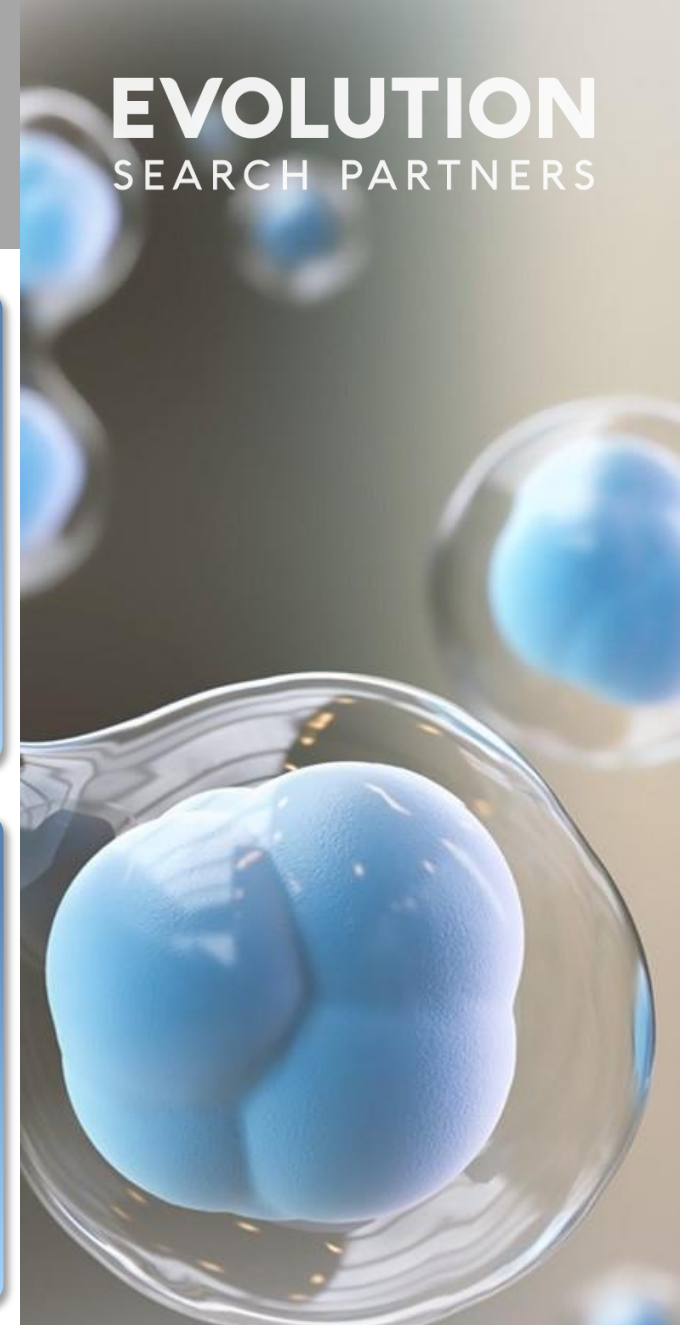
Top 3 Companies:

Largest **Monthly** Talent Demand Increase
Normalised versus employee no.

Wacker Chemie **14.63%**

Avid Bio **9.13%**

Sutro Biophar. **8.32%**



A microscopic view of several cells, each with a prominent blue nucleus. The cells are connected by thin, clear cytoplasmic bridges. The background is a soft, out-of-focus gradient of light blue and white, suggesting a bright light source. The overall image has a clean, scientific aesthetic.

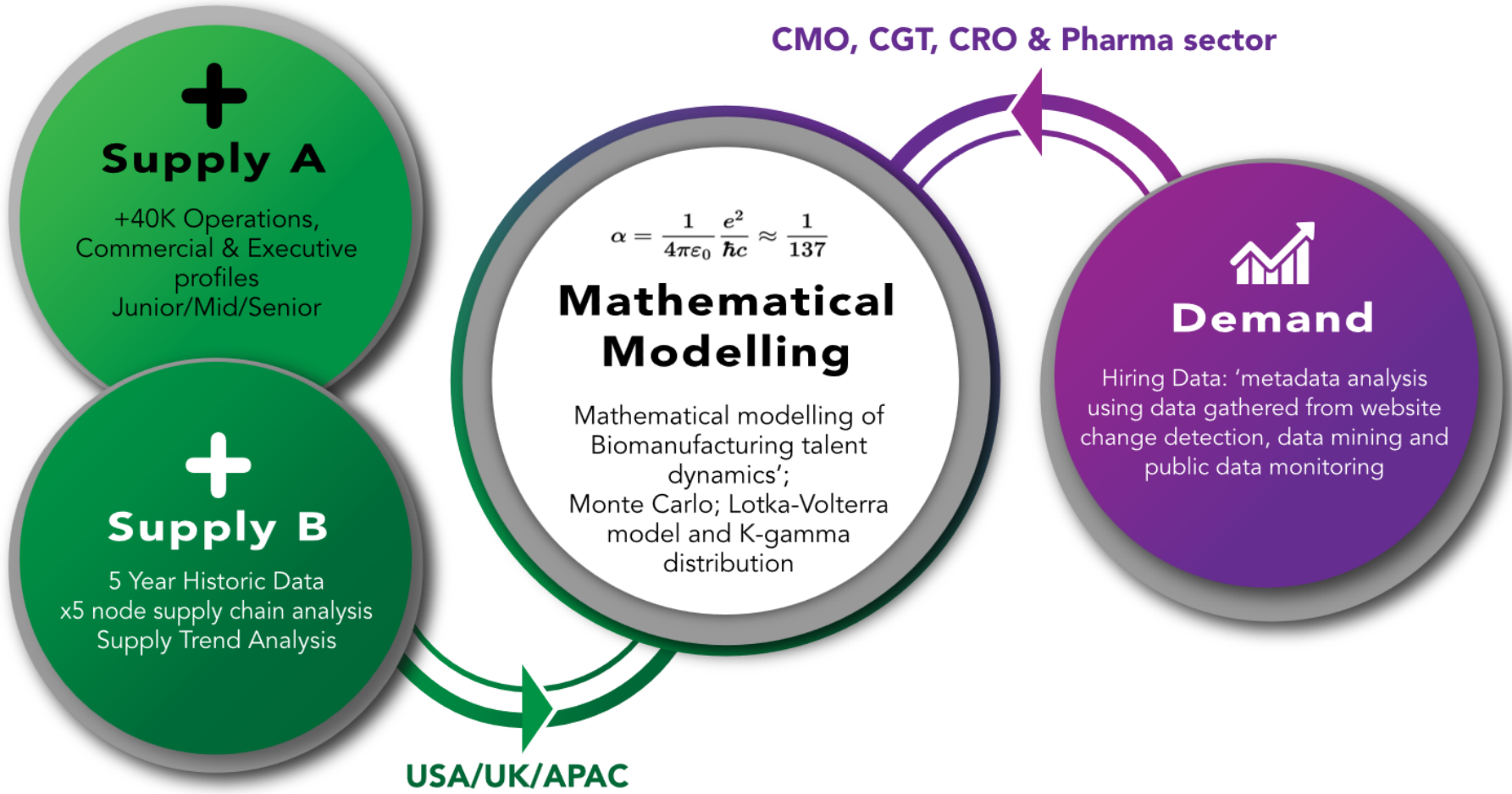
EVOLUTION

SEARCH PARTNERS

CDMO

Introduction and Methodology

Introduction & Methodology



EVOLUTION
SEARCH PARTNERS

Introduction & Methodology

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 for 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, and production, with a shifting of resources towards pandemic response. 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.

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.

Long Term

A microscopic view of several cells, each with a prominent blue nucleus, set against a dark background with a soft light gradient. The cells are connected by thin, clear filaments, suggesting a network or a process of cell division or communication. The overall aesthetic is clean and scientific.

EVOLUTION

SEARCH PARTNERS

CDMO

CDMO Market Dynamics Data

Industry Sub-Sector

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

12 | Average Total Job Number (MTD, QTD, YTD, 2-YTD)

14 | Total Job Number by Job Type

18 | Data Summary – Monthly Hiring Insight

26 | Market Drivers

28 | Predictive Talent Market Dynamics



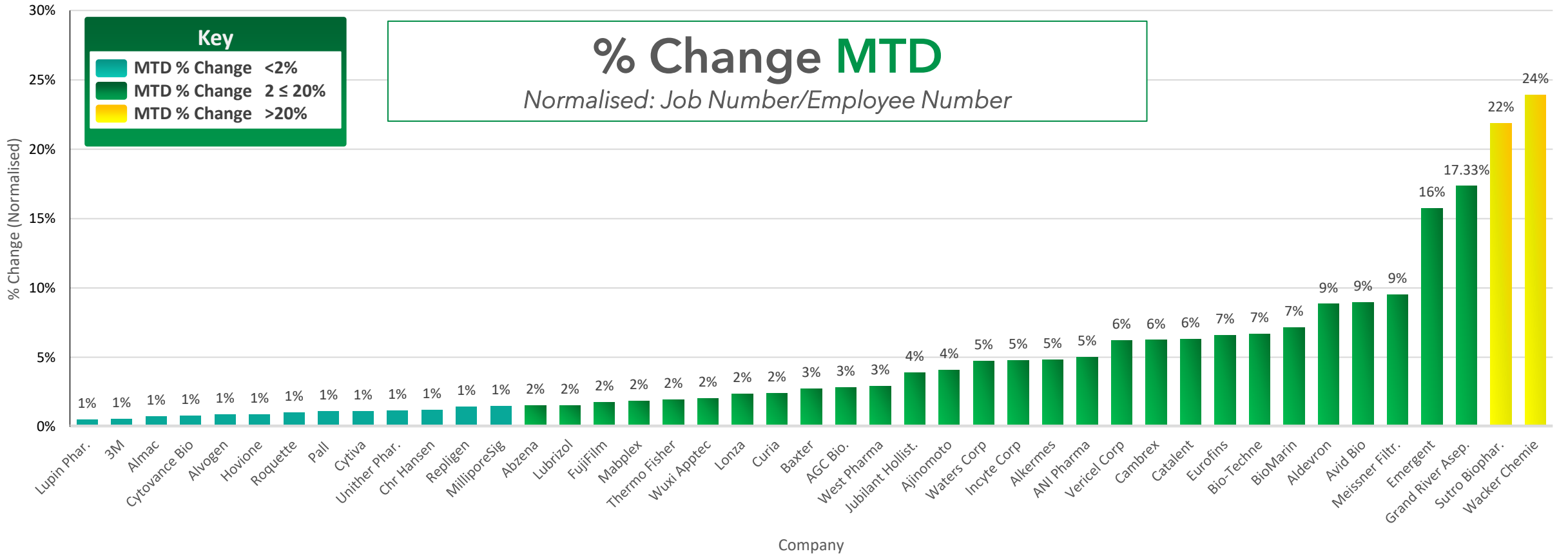
The background of the slide is a microscopic view of several blue, spherical cells, likely yeast or bacteria, with clear cell walls and internal structures. The cells are arranged in a cluster, with some in sharp focus and others blurred in the background. A semi-transparent dark grey horizontal band is overlaid across the center of the image, containing the text.

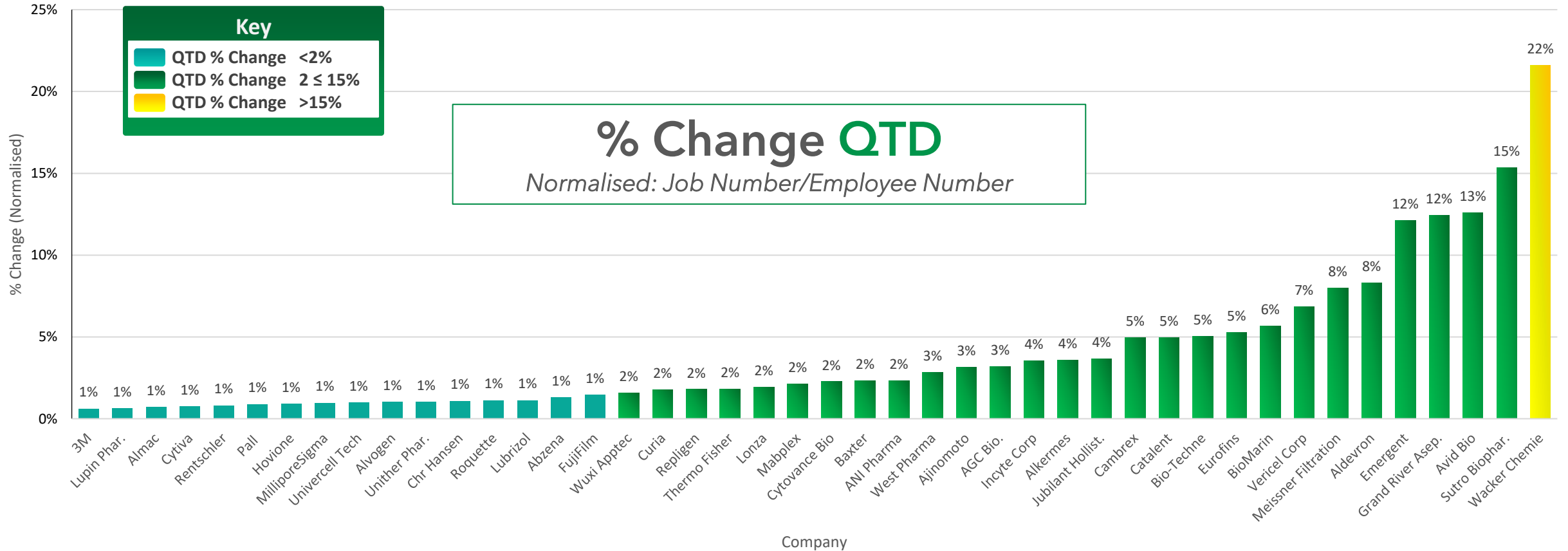
EVOLUTION

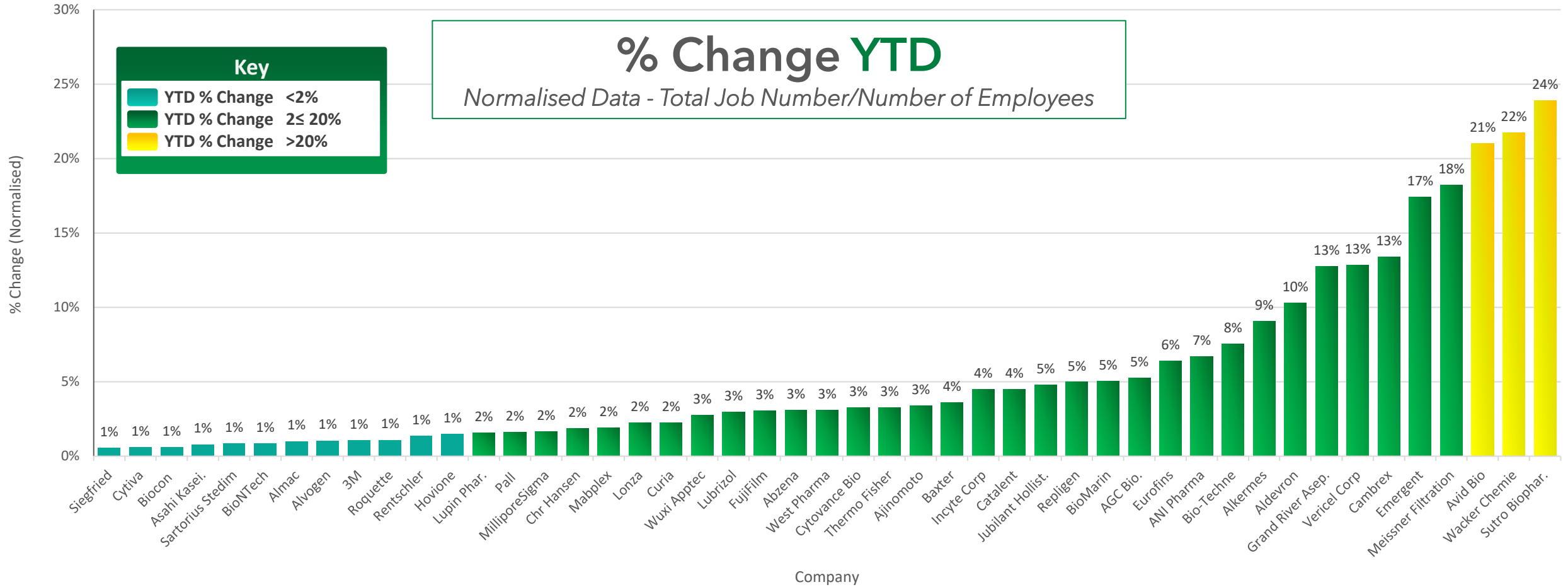
SEARCH PARTNERS

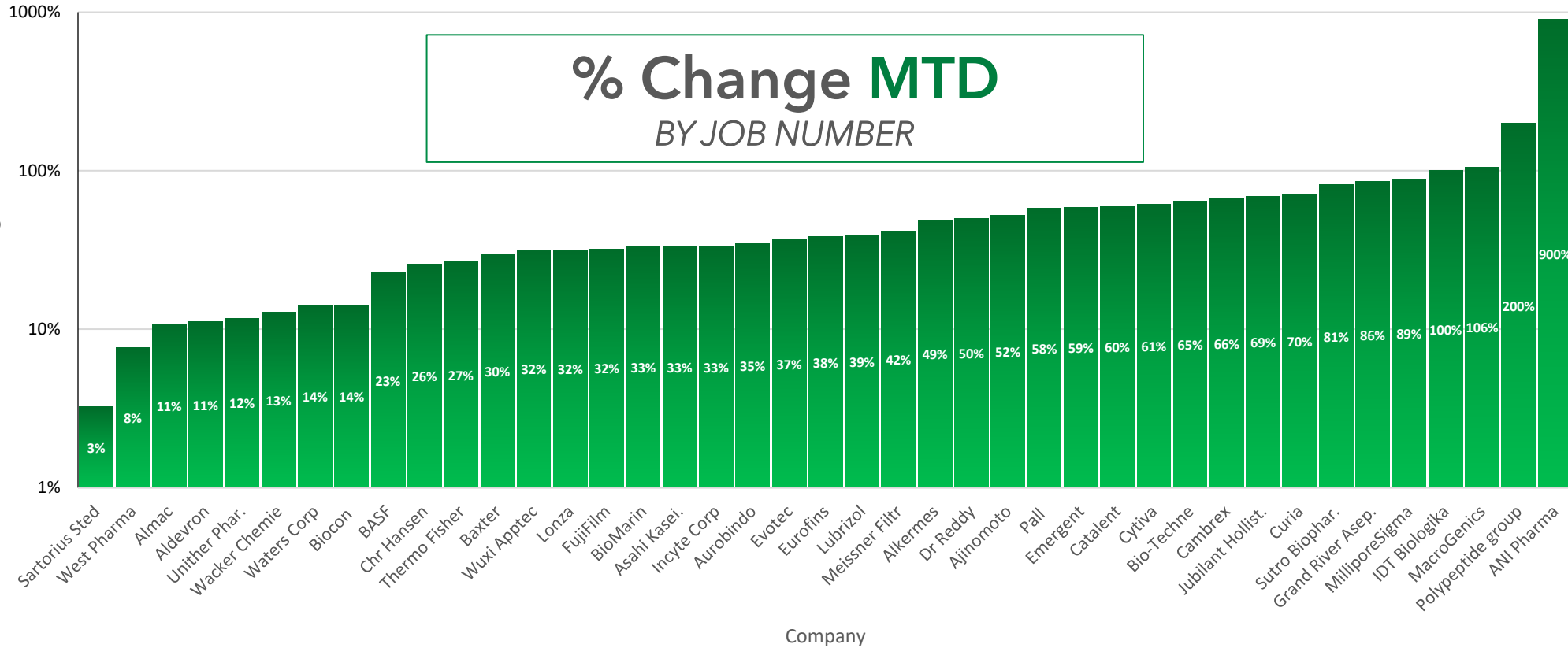
CDMO

Assessment of Hiring Frequency by Job Number (Normalised)





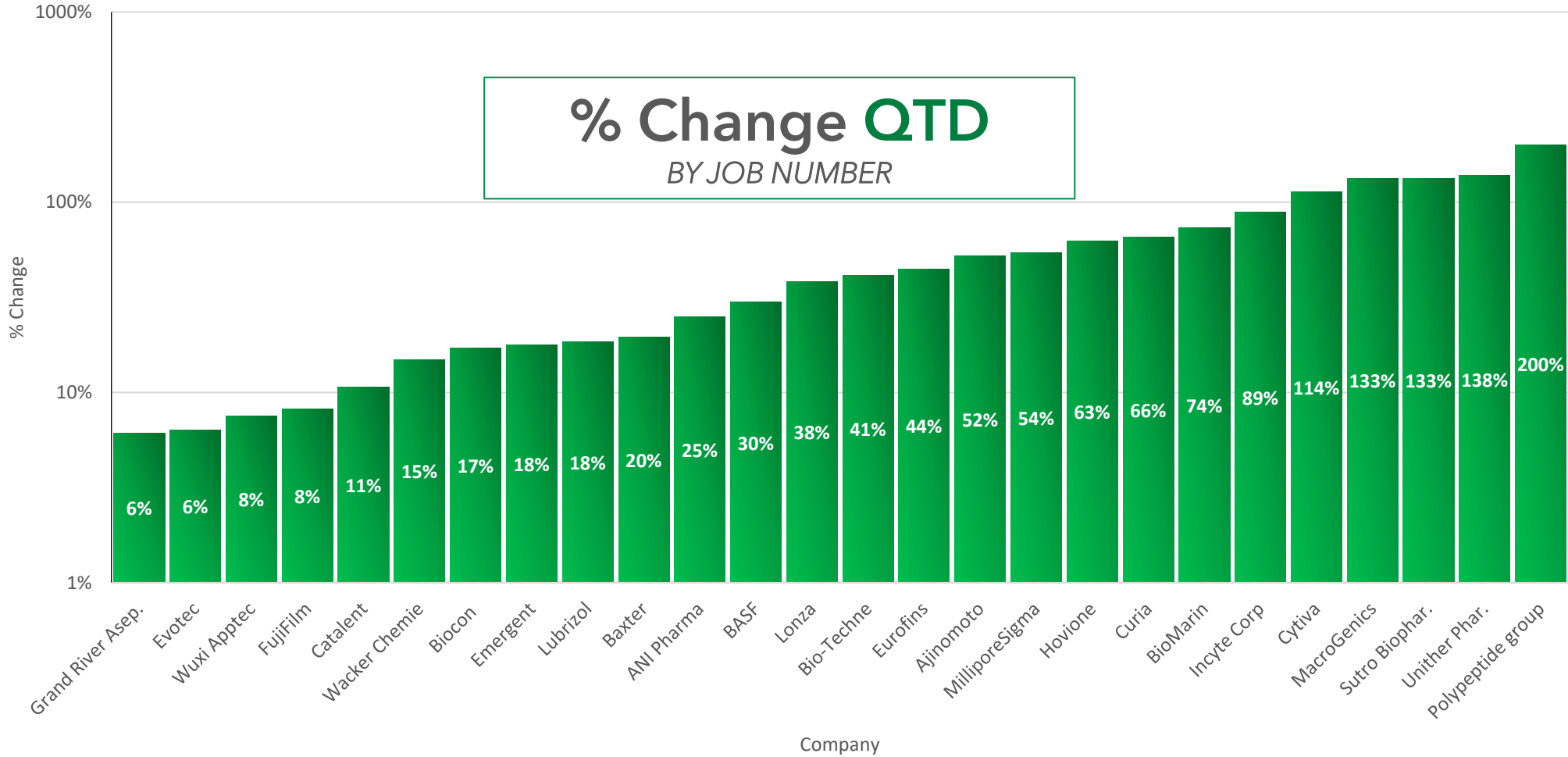




ANI Pharma
Polypeptide group
MacroGenics



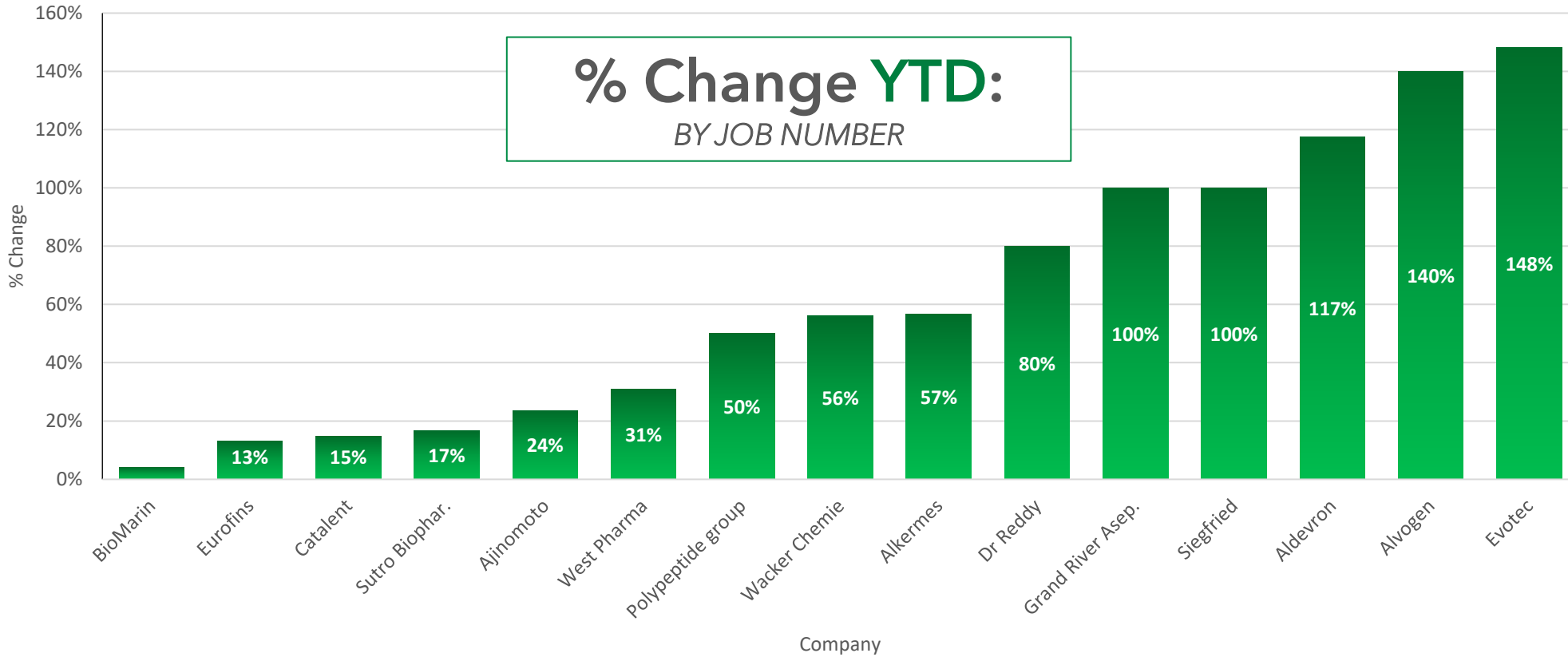
Siegfried
Cytovance Bio
Univercell Tech



Polypeptide group
Unither Phar.
Sutro Bio.



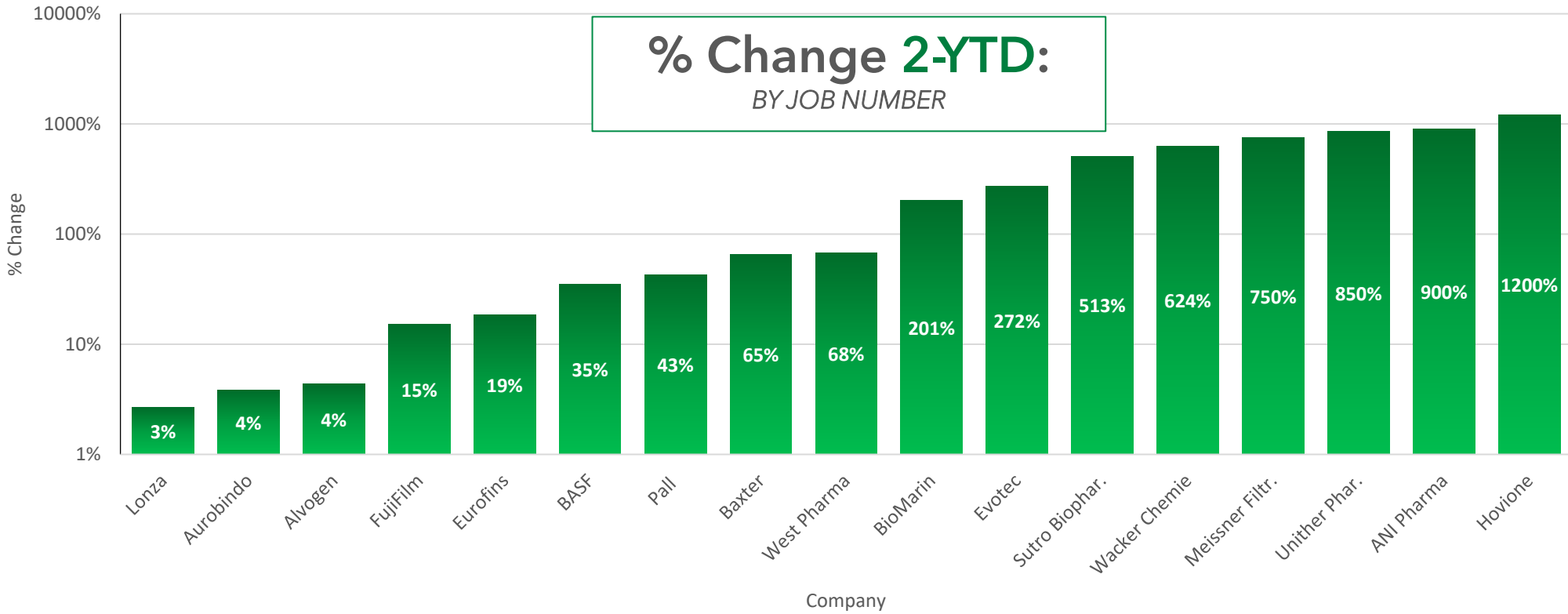
Asahi Kasei.
Rentschler
BioDuro



Aldevron
Alvogen
Evotec



Rentschler
BioDuro
Corden



Unither Phar.
ANI Pharma
Hovione



Cognate Bio
Corden
BioDuro

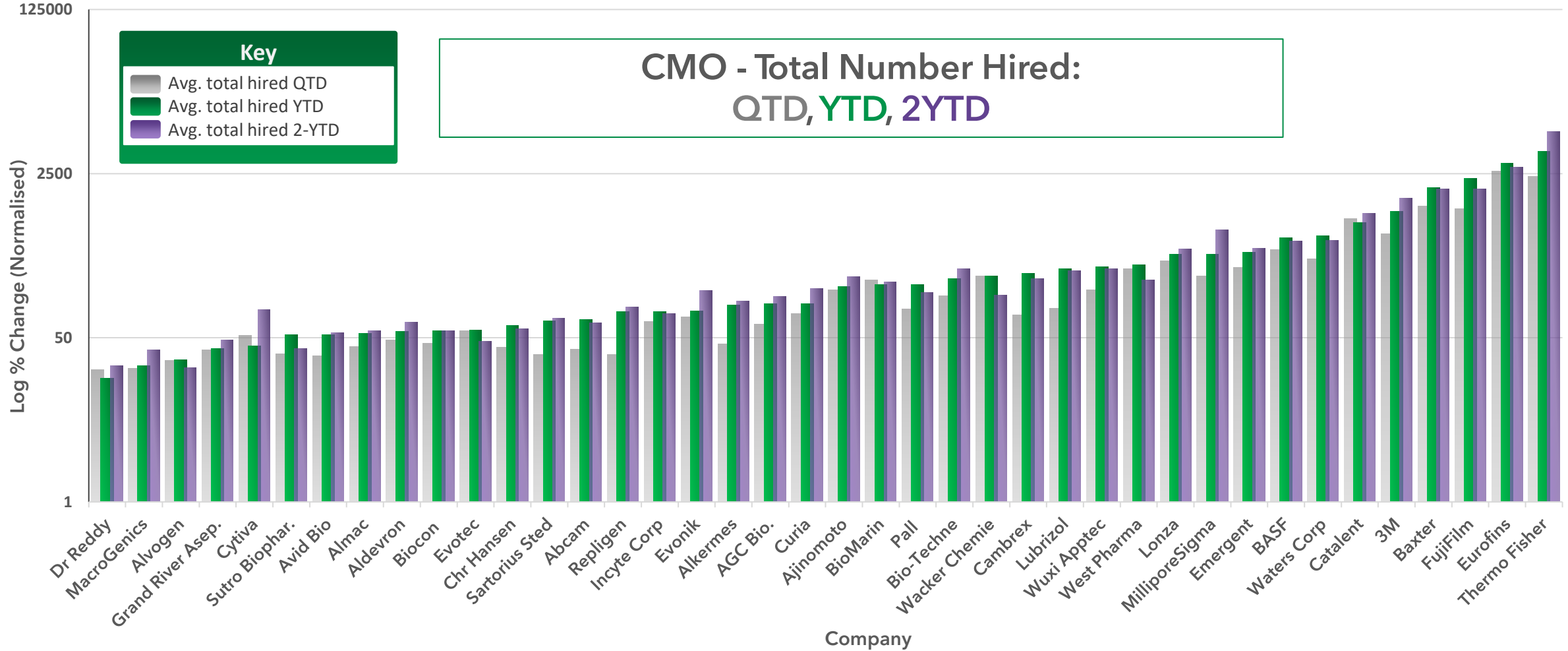
The background of the slide is a microscopic view of several blue, spherical cells, likely yeast or bacteria, each enclosed in a clear, glass-like membrane. The cells are arranged in a somewhat circular pattern, with some in the foreground and others in the background, creating a sense of depth. A semi-transparent horizontal band is overlaid across the center of the image, containing the text.

EVOLUTION

SEARCH PARTNERS

CDMO

Assessment of Hiring Frequency by Job Number (Average)



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



Key

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

Thermo Fisher, Thermo Fisher and Fujiflim
Largest increase across QTD, YTD, 2YTD.

A microscopic view of several blue, spherical cells with clear, glass-like membranes, set against a dark, blurred background. The cells are of various sizes and are connected by thin, clear filaments, suggesting a network or a process of cell division or interaction. The lighting is soft, highlighting the texture of the cell surfaces.

EVOLUTION

SEARCH PARTNERS

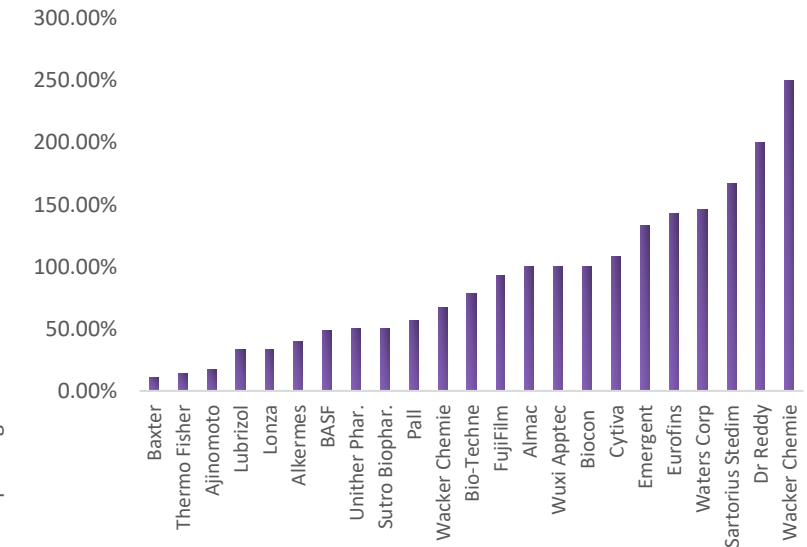
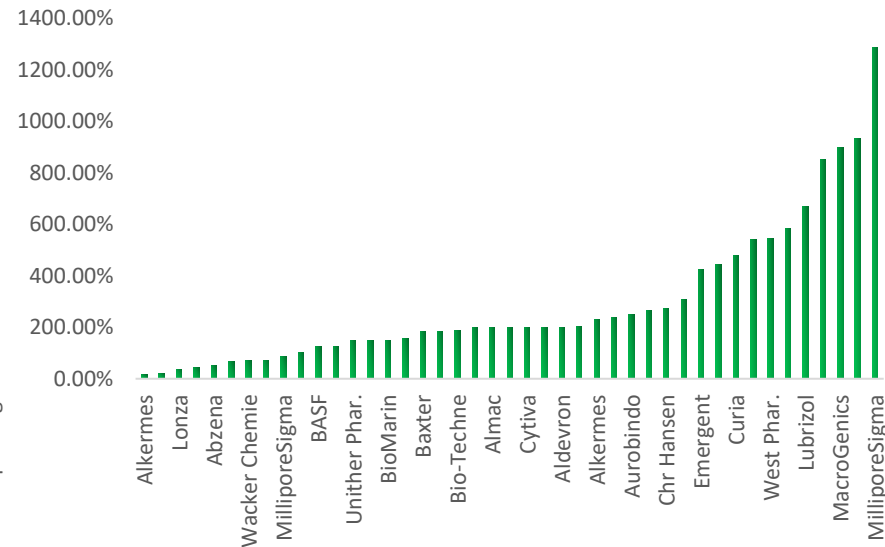
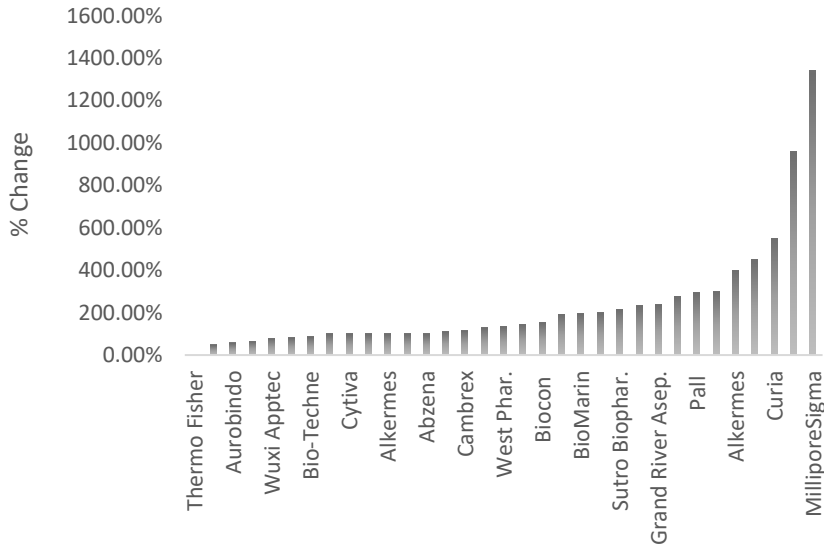
CDMO

Assessment of Hiring Frequency by Job Type

R&D

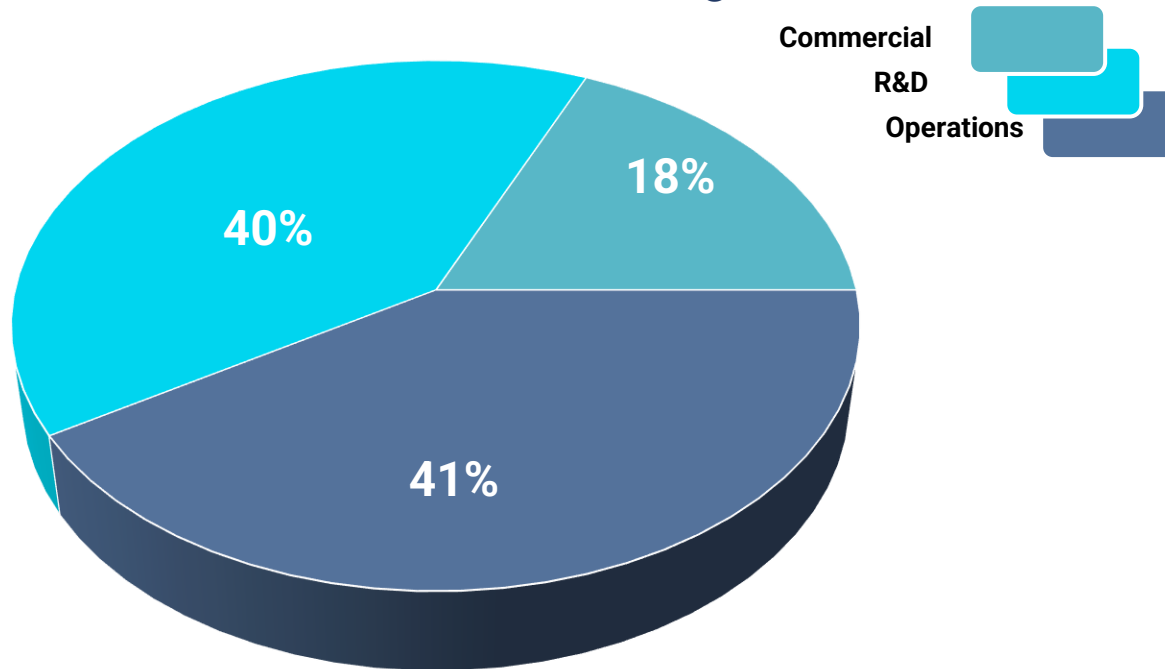
Operations

Commercial



Company

Breakdown of Roles Postings



YTD (Increasing)

Commercial:

Wuxi Apptec
Emergent

Operations:

West Phar.
Wacker Chemie

R&D:-

West Phar.
Sutro Biophar.

MTD (Increasing)

Commercial:

Sartorius Stedim
Dr Reddy

Operations:

Cambrex
MilliporeSigma

R&D:-

Curia
MilliporeSigma

A microscopic view of several cells with blue nuclei, set against a dark background with a light gradient. The cells are connected by thin, clear channels, suggesting a network or flow. The text is overlaid on a semi-transparent dark band across the center of the image.

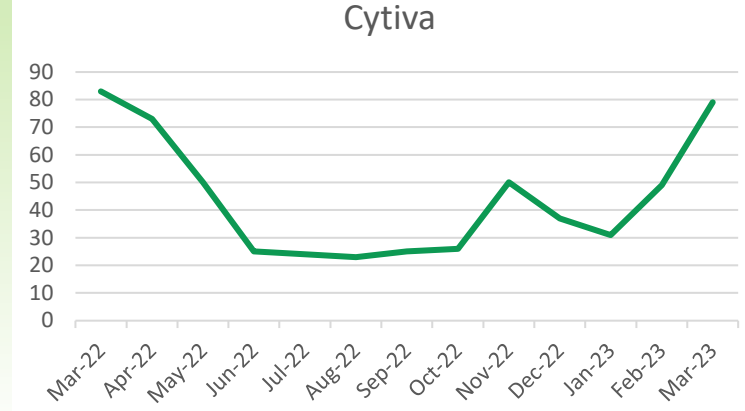
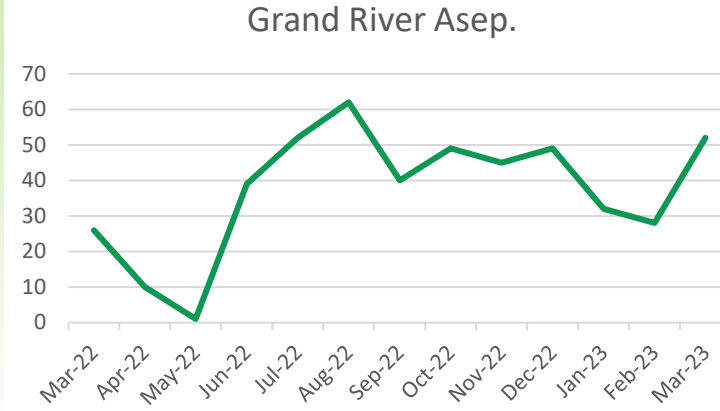
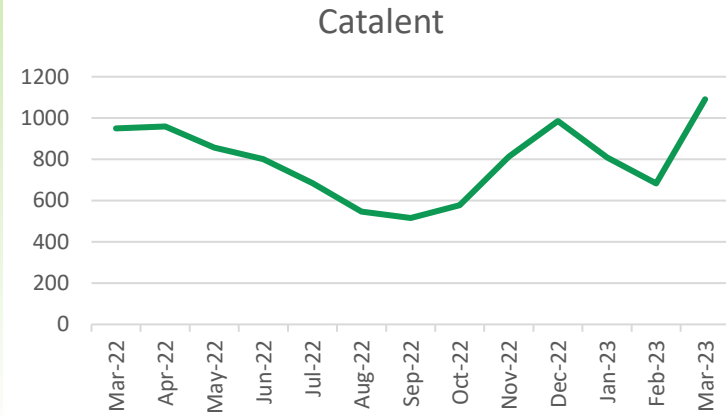
EVOLUTION

SEARCH PARTNERS

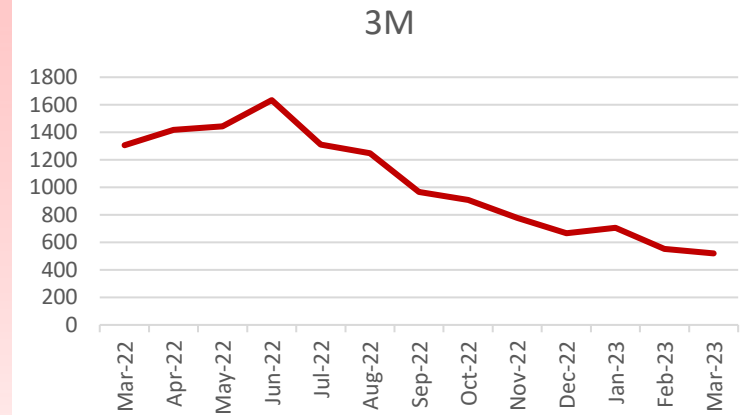
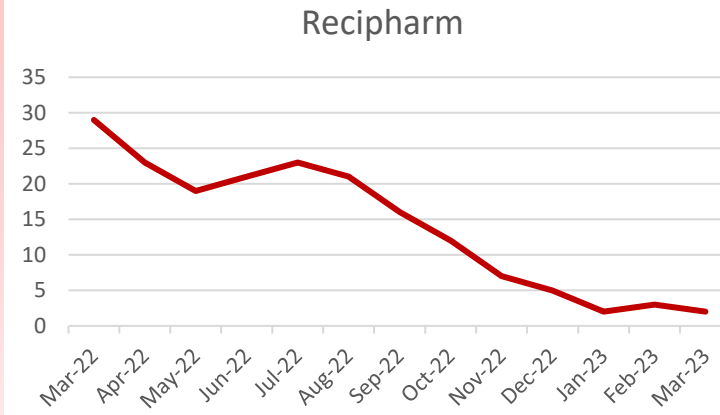
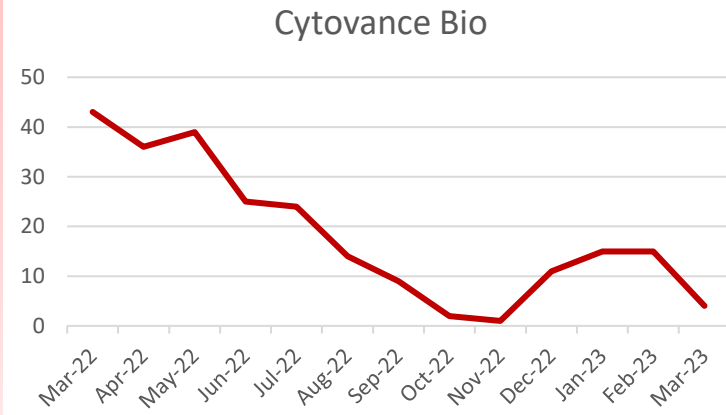
CDMO

Data Summary – Monthly Hiring Industry Insight

INCREASING



DECREASING



A microscopic view of several cells with blue nuclei, some in the process of dividing. The cells are set against a dark background with a soft, glowing light source from the top, creating a bokeh effect. A semi-transparent dark horizontal band is overlaid across the middle of the image, serving as a background for the text.

EVOLUTION

SEARCH PARTNERS

CDMO

Market Drivers



- In 2022, Sutro Biopharma entered a worldwide, strategic collaboration and licensing agreement with Astellas focused on the discovery and development of novel immunostimulatory antibody-drug conjugates (iADCs).
- Sutro initiated a collaboration and licensing agreement with BioNova Pharmaceuticals Limited (BioNova) to develop and commercialize STRO-001, a CD74-targeting Antibody-Drug Conjugate (ADC)
- Sutro initiated a collaboration and licensing agreement with Tasly Biopharmaceuticals Co., Ltd



- Wacker \$200 million expansion to add another 200 jobs in Charleston, Tennessee



- Avid Bioservices Announces Launch of Analytical and Process Development Suites Within New, World-Class Viral Vector Development and Manufacturing Facility
- Avid Bioservices Announces Expansion into Viral Vector Development and Manufacturing Services for Cell and Gene Therapy
- Avid Bioservices, Inc. is expanding its CDMO service offering into the cell and gene therapy market: constructing a purpose-built 53,000 sq. ft. viral vector development and CGMP manufacturing facility in Costa Mesa, CA.

A microscopic view of several cells, likely yeast or similar microorganisms, with prominent blue-stained nuclei. The cells are arranged in a cluster, with some showing budding or division. The background is a soft, out-of-focus gradient of light and dark tones.

EVOLUTION

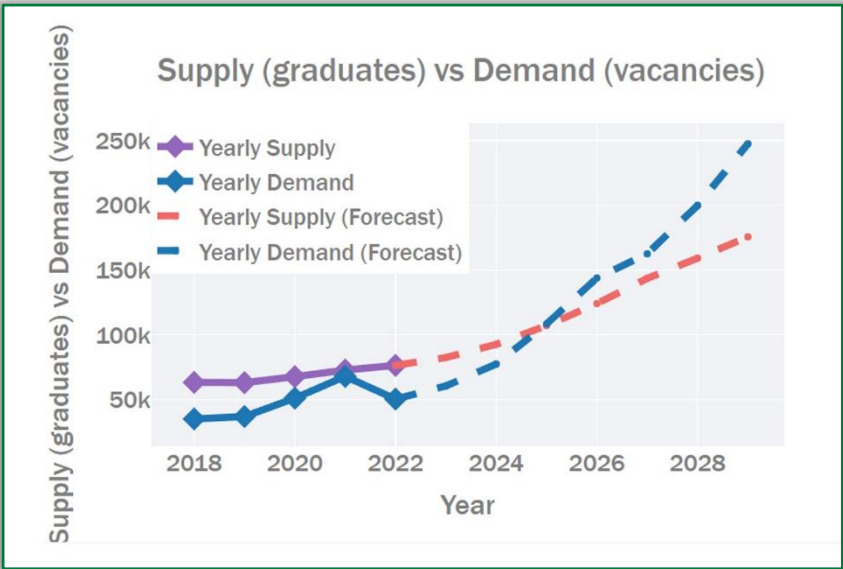
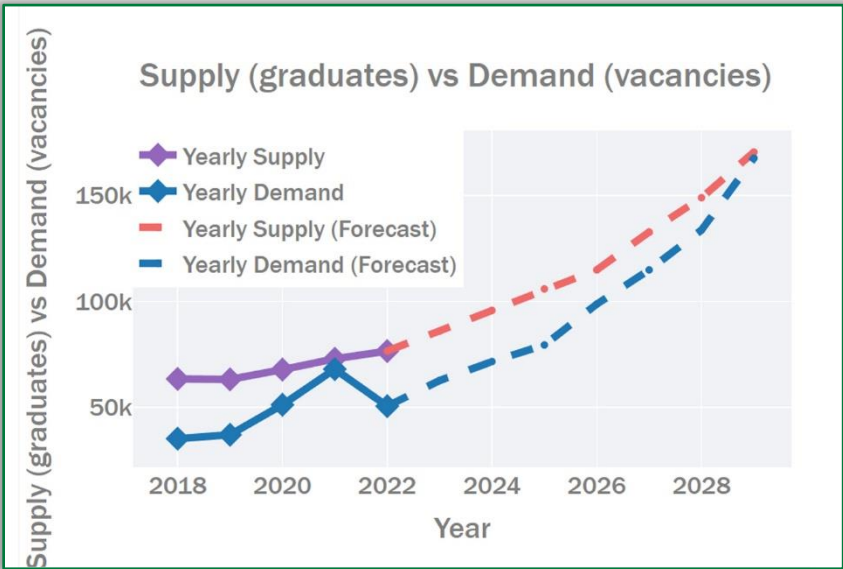
SEARCH PARTNERS

CDMO

Predictive Talent Market Dynamics

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.

