

Major evolutions & trends in the fight against cancer

Servaas Michielssens
Head of Healthcare

OCT. 2024





LUX IM

Fondo

Classe Retail (DXL)

LUX IM ESG CANDRIAM Oncology Science

LU2344409185

BG Stile Libero

Fondo

Rating Morningstar

Classe Istituzionale

CANDRIAM Equities L Oncology Impact (Euro hdg)



LU2015349330

CANDRIAM Equities L Biotechnology



LU1269736838

Coming Soon – Q1 2025 – in distribuzione diretta / Assicurativo

Fondo

Rating Morningstar

Classe Retail

CANDRIAM Equities L Biotechnology



LU1120766388

CANDRIAM Equities L Life Care



LU2223680658





Speaker

Servaas Michielssens

Head of Healthcare



01

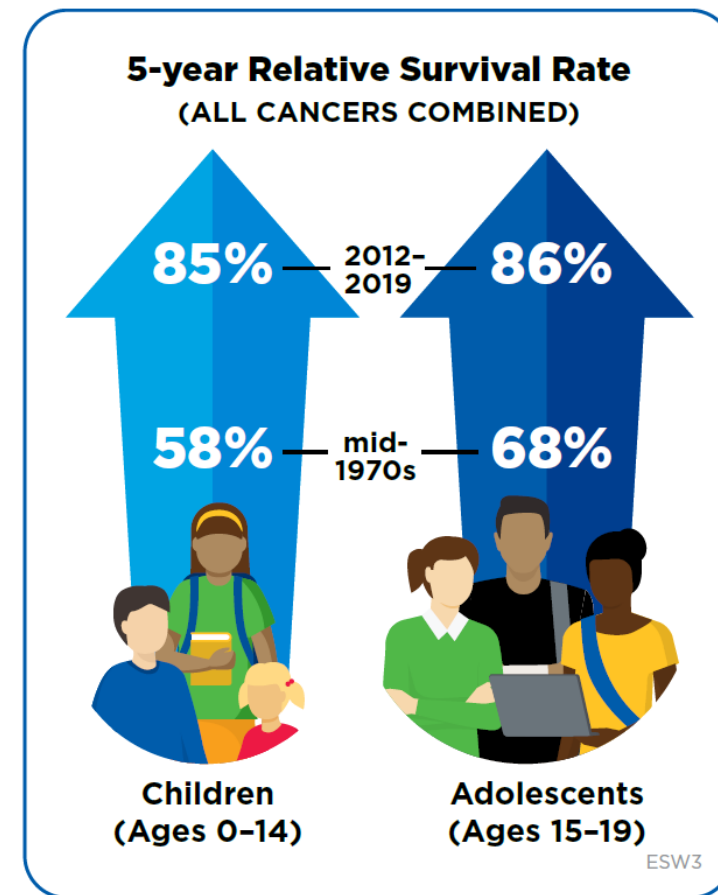
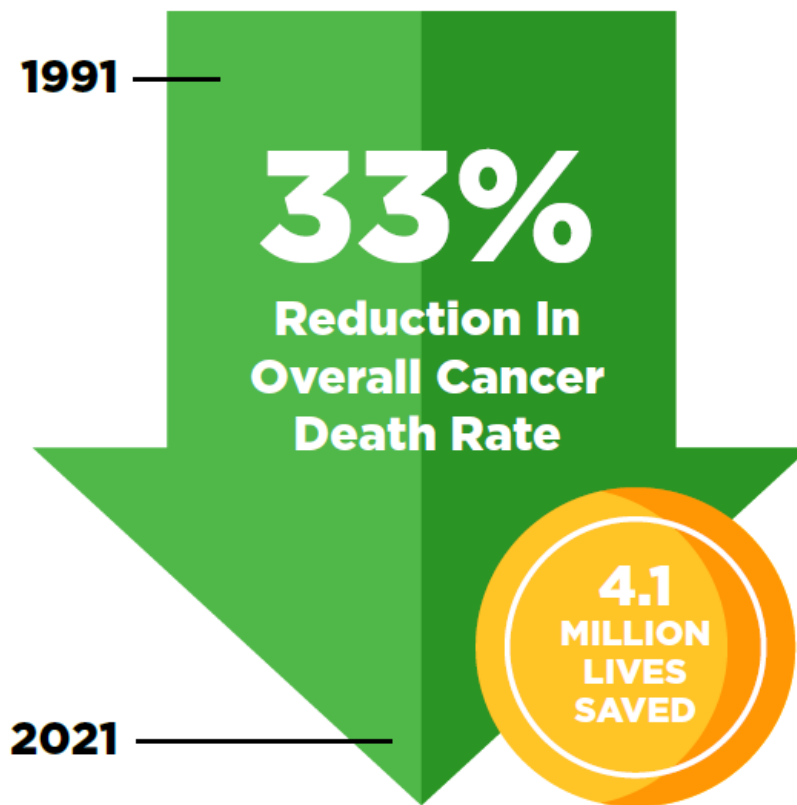
**Are we
winning the
fight against
cancer?**



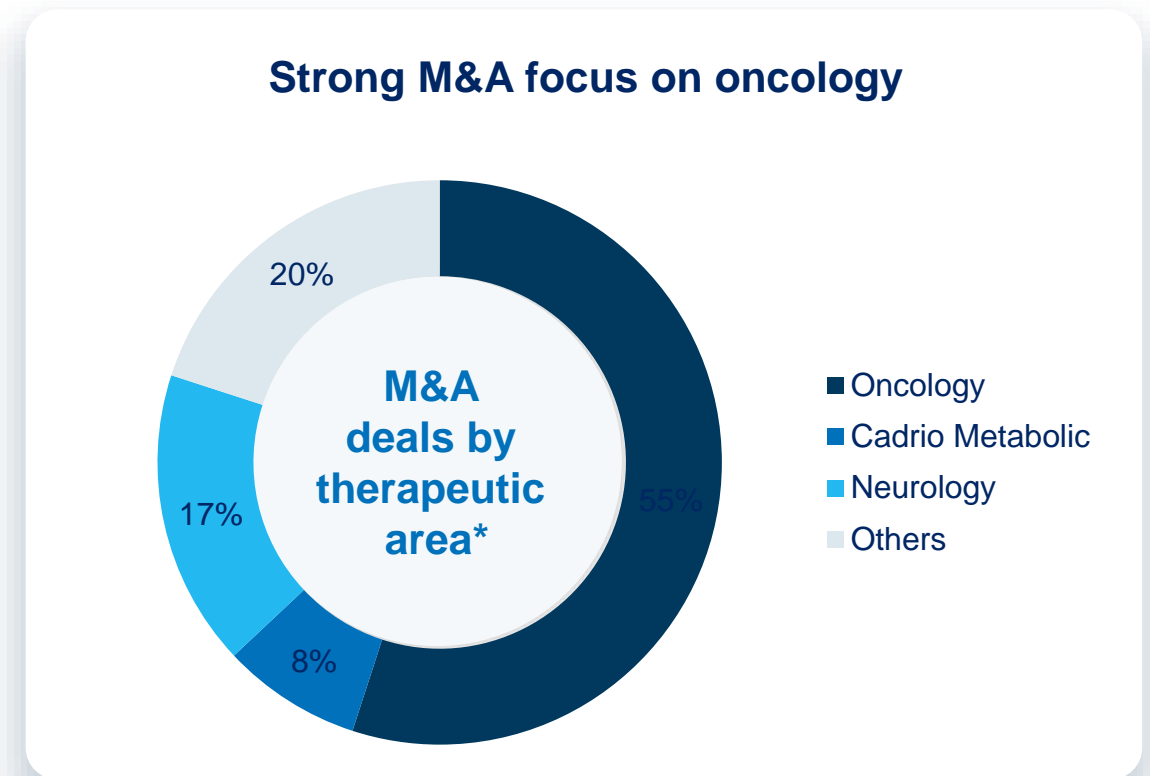
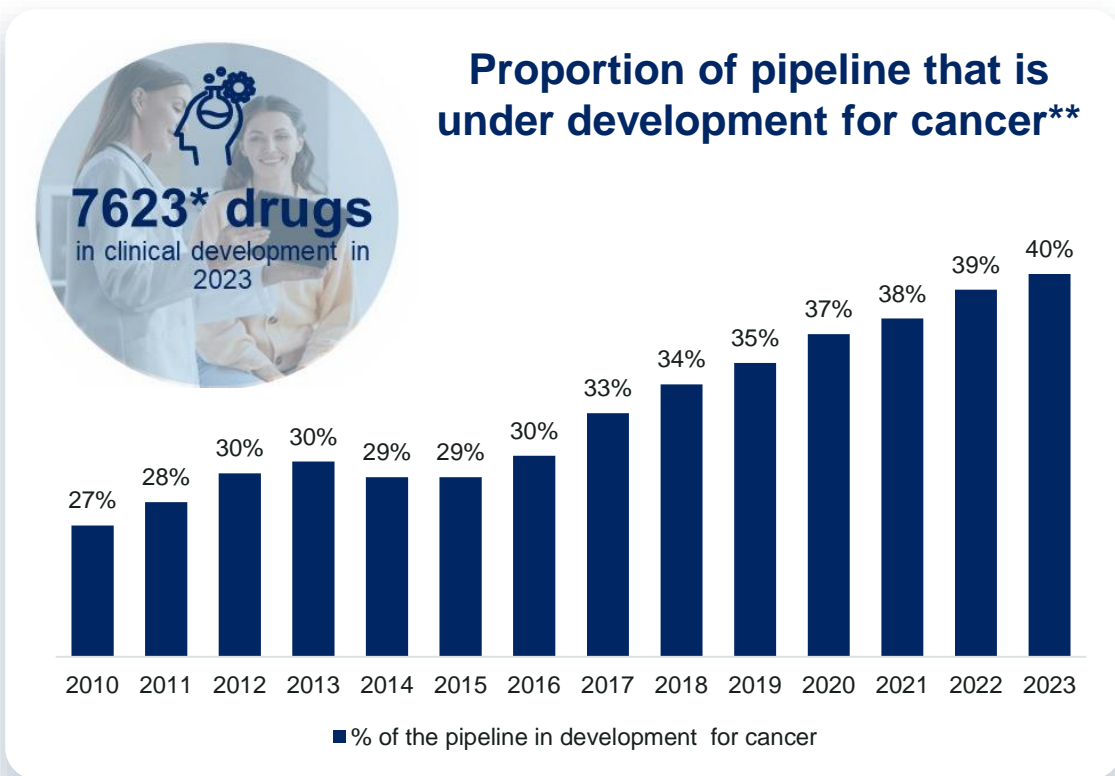
Survival rates are improving

Notable **improvements in cancer survival** thanks to earlier detection and/or advances in treatment

US trends in survival rates



Oncology continues to be the majority focus for sector R&D spend and M&A



Source: *Charles River Laboratories: presentation of the 39th Annual J.P. Morgan Healthcare Conference in 2021; McKinsey Oncology Market Outlook 2020 – Compounds in Clinical Development (Phase I-III) excluding Reformulations and Biosimilars, Pharmaprojects, 2019, pharmaintelligence.informa.com, representing approximately one-third of the global clinical pipeline across all therapeutic areas. **Global R&D Trends 2023: Activity, Productivity and Enablers

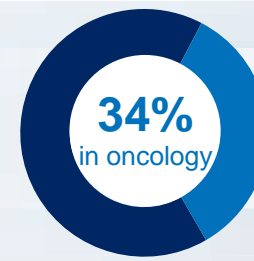


A tangible impact: the Candriam strategy is involved in the majority of novel oncology drug approvals

With approximately one third of total new drug approvals (NME: new molecular entities), the oncology space takes a prominent place;

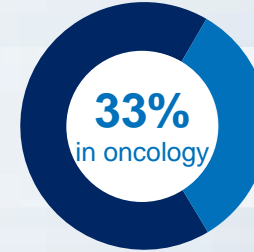
The Candriam strategy was involved in the vast majority of those oncology approvals.

53 NME approvals in
2020



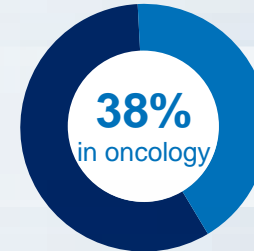
79%
in portfolio

51 NME approvals in
2021



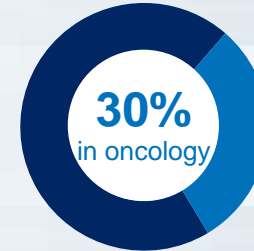
59%
in portfolio

39 NME approvals in
2022



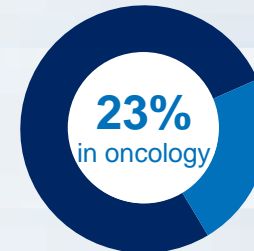
47%
in portfolio

66 NME approvals in
2023



56%
in portfolio

30 NME approvals in
2024*



57%
in portfolio



Despite recent advances, the patient outlook is often still poor



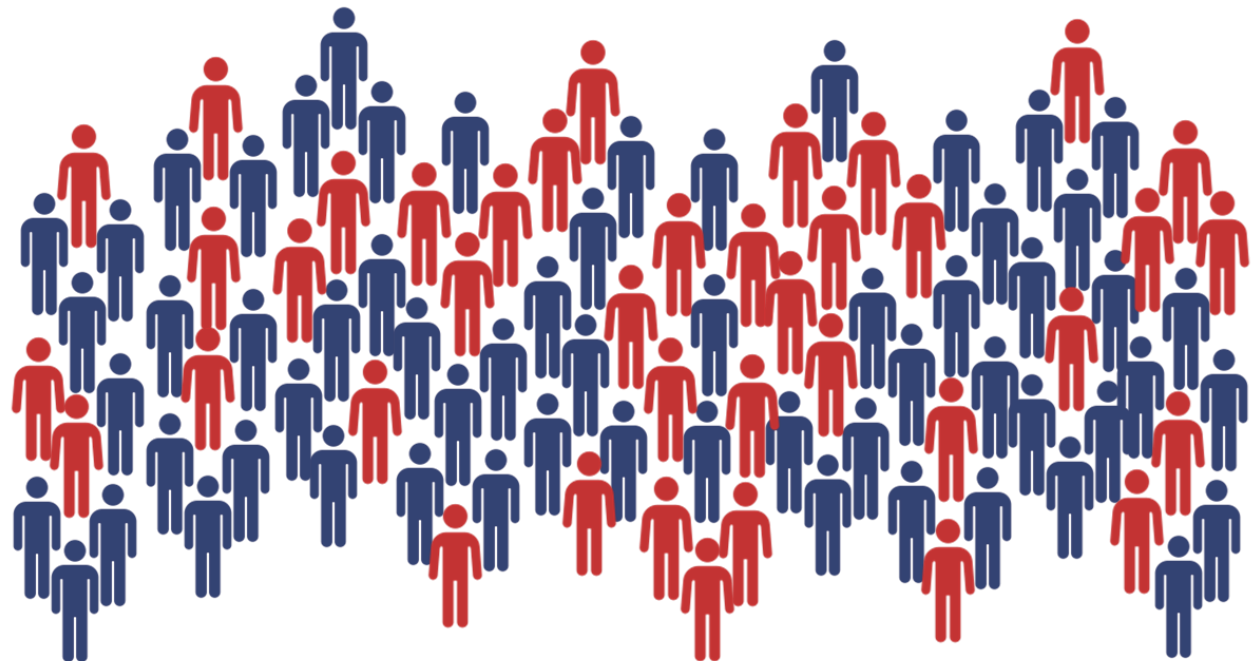
~1,600

DEATHS/DAY
due to cancer in the US

Cancer is
the **2nd-leading cause**
of death globally

~40% LIFETIME RISK

38.4% of men & women will be diagnosed
with cancer at some point during their lifetimes



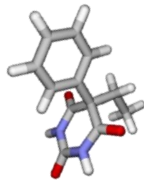
02

Cutting-edge evolutions



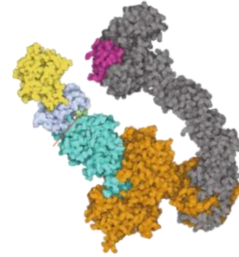
What is next? Innovation based on precision, selectivity and technology

Precision



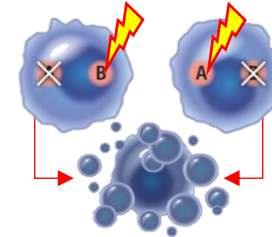
Small Molecules

Although small molecules have been used for decades, there is still room for innovation. Several generations of kinase inhibitors with increasing efficacy and safety.



Protein Degraders

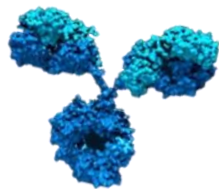
New class of therapeutic solutions based on small molecules that not only inhibit but entirely eliminate proteins responsible for various diseases, previously considered undruggable.



Synthetic Lethality

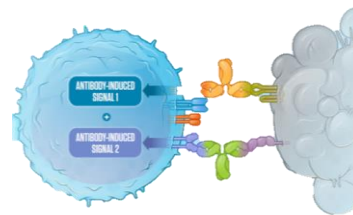
Exploiting the interactions between pairs of genes in cancer cells for therapeutic purposes: perturbation of either gene alone is viable but inhibiting the product of one gene while the other one is mutated leads to cell death.

Selectivity



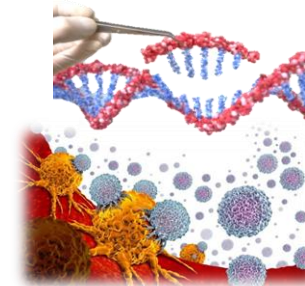
Antibody – Drug Conjugates

Designed to act more precisely on the cells that cause disease, without targeting healthy cells.



Bispecific antibodies

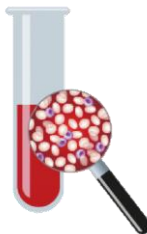
Antibodies with two targets, e.g., T-cell activators, to stimulate the natural immune system to fight the disease.



Gene and Cell Therapies

Modify the patient's genes to treat the disease, increase the level of a missing enzyme, or repair a genetic defect.

Technology



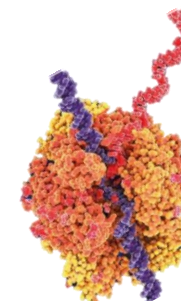
Liquid Biopsy

Non invasive diagnostic technique that allows for detecting cancerous cells or their DNA circulating in the blood sample.



A.I.

Artificial intelligence assisted imaging - impressive accuracy and sensitivity of diagnosis



RNA Therapeutics

Allowing for modulation of protein expression, e.g., to reduce the levels of proteins responsible for a disease.



Exosomes

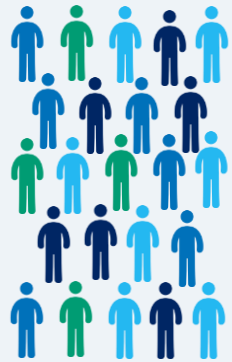
Extracellular vesicles generated by the cells, which can be used as targeted drug delivery vehicles, potentially overcoming the challenges of systemic toxicity



Cancer vaccines: a new era in **individualized cancer treatment**

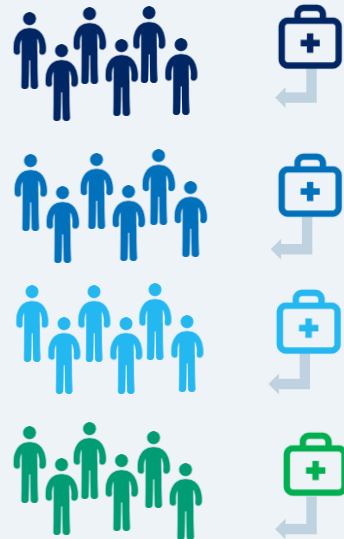
- Many tumor mutations are unique for each patient;
- Each vaccine can be uniquely tailored to each patient.

Cancer therapy

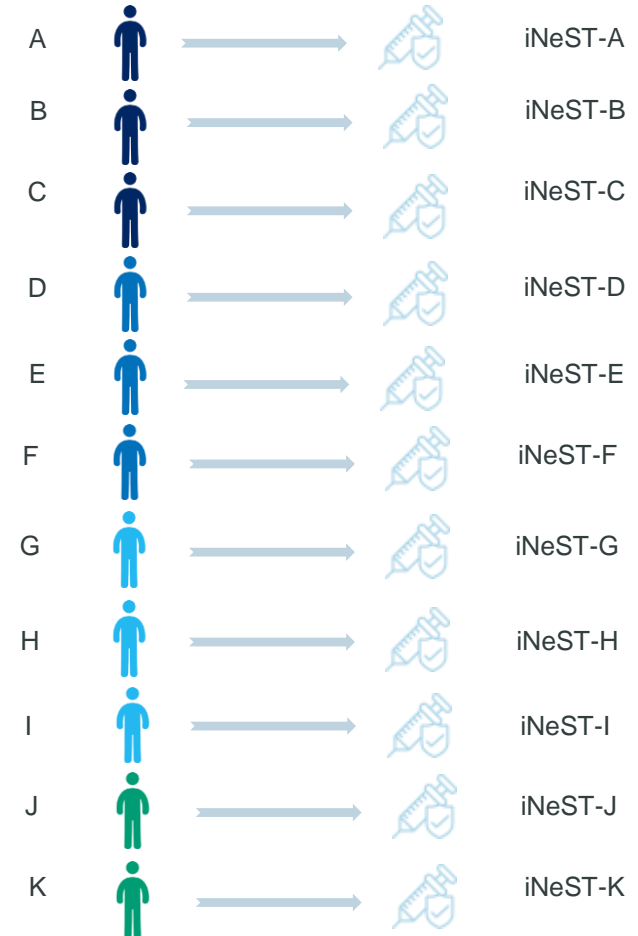


Patients with a type of cancer

Personalized cancer therapy



Individualized cancer vaccine



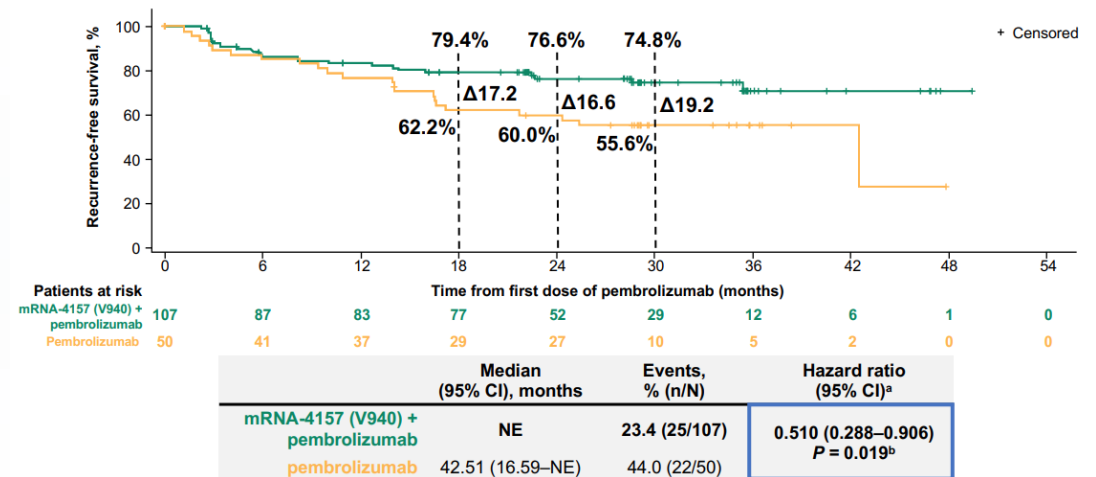
Cancer vaccines: a new era in individualized cancer treatment

~50%

less risk of recurrence or death.

Impressive data from Moderna and Merck

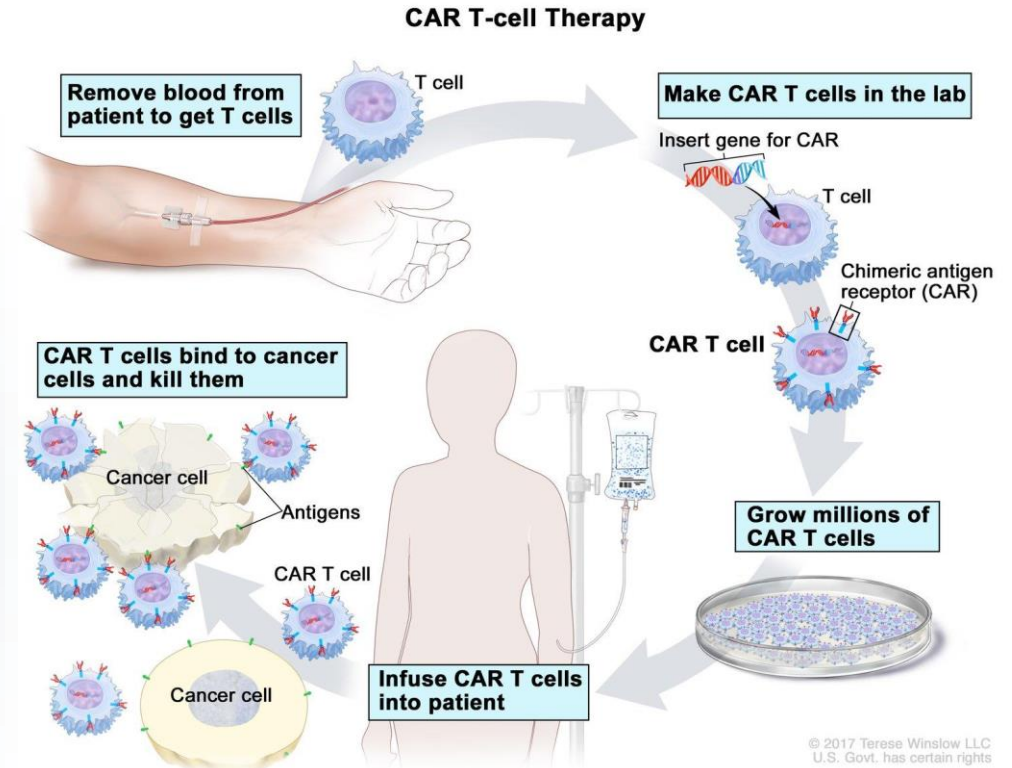
74.8%
of the treated melanoma patients remain cancer free post surgery at 2.5 years.



Legend: CAR-T against BCMA target

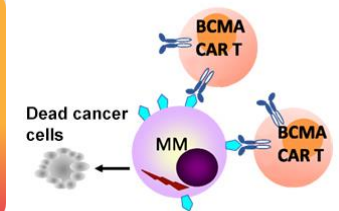
CAR-T against BCMA target with the **best clinical outcome for multiple myeloma patients** who failed front-line therapy (Darzalex based regimens).

- › BCMA CAR-T, **Carvykti**, was approved in 2022 and offers the highest selectivity against tumor cells. **Increased tumor target selectivity remains key** to deliver more precise and chronic treatments to patients, while avoiding potential off target toxicities.
- › Although many medicines are available for multiple myeloma patients, BCMA CAR-T is **the only one to offer one and done modality**.
- › BCMA CAR-T is a live therapy with **higher probability of success**.



CARVYKTI®
(ciltacabtagene autoleucel) Suspension for IV Infusion

BCMA-directed CAR-T therapy; delivered as a single infusion*³
*Although delivered as a single infusion, therapy with CARVYKTI® is part of a multi-step process.³



03

A.I. in health care



Impactful ways **artificial intelligence** improves healthcare



Facilities

- › Reduced administrative burden
- › Towards reliable care
- › Example: HCA Healthcare



Target discovery & drug design

- › Faster development
- › Safer, better drugs
- › Example: Amgen



Clinical development

- › The right drug for the right patient
- › Example: IQVIA



Medical imaging

- › Faster assessment and more precise medical imaging
- › Example: Hologic



Diagnostics

- › Early diagnosis
- › More convenient
- › Example: Natera



Procedures & solutions

- › Safer procedures
- › Less staff needed
- › Example: Intuitive surgical



Revolutionizing drug development

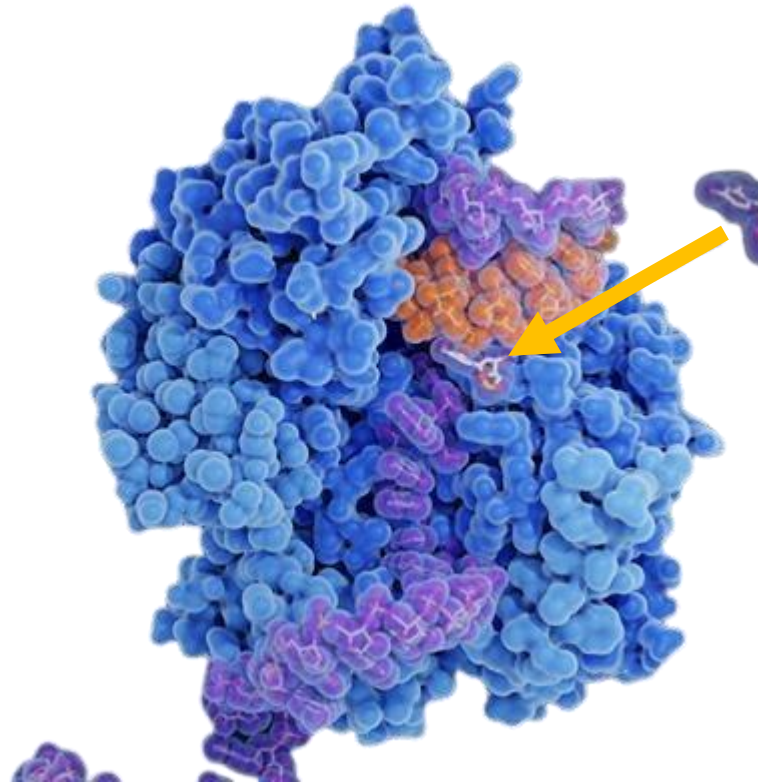
Background: proteins are key targets for drug discovery. The availability of correct protein structures is greatly enhancing the rational development of safe and efficacious drugs.



> The problem

For only ~0.1% of all proteins, an experimental structure is known.

Predicting that structure via simulations is an enormous challenge, as for a typical proteins there are more possibilities than atoms in the universe.



Picture source: Pharmacokentics



> The solution

A.I. made it possible to predict the structures of virtually all proteins, dramatically expanding the available targets for rational drug design.



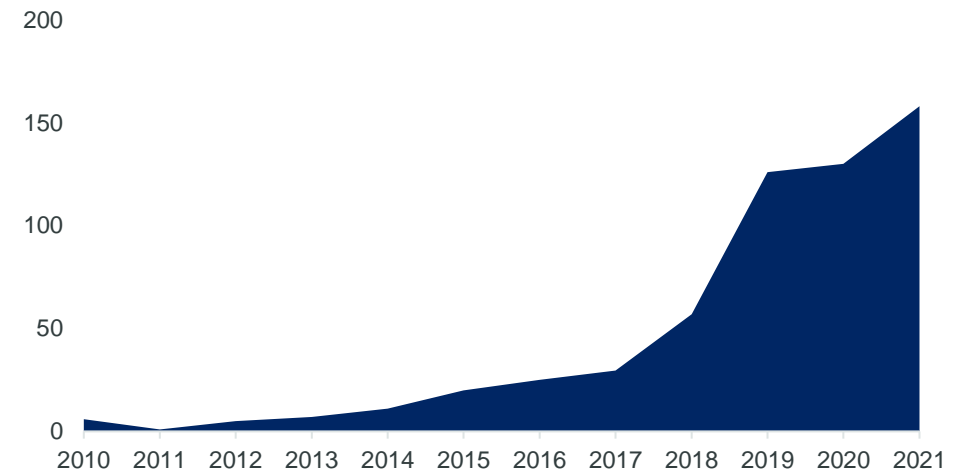
Leveraging on DeepMind's ML computational approach to **predict the structures of proteins**



Drug development: A.I has the **potential to fast-track drug discovery**



A.I. co-discovered drugs - N° of assets in discovery and clinical trials*



* Source: Candriam, Citigroup, Nature Reviews Drug Discovery via Recursion



Hologic: Genius A.I.® Detection Solution



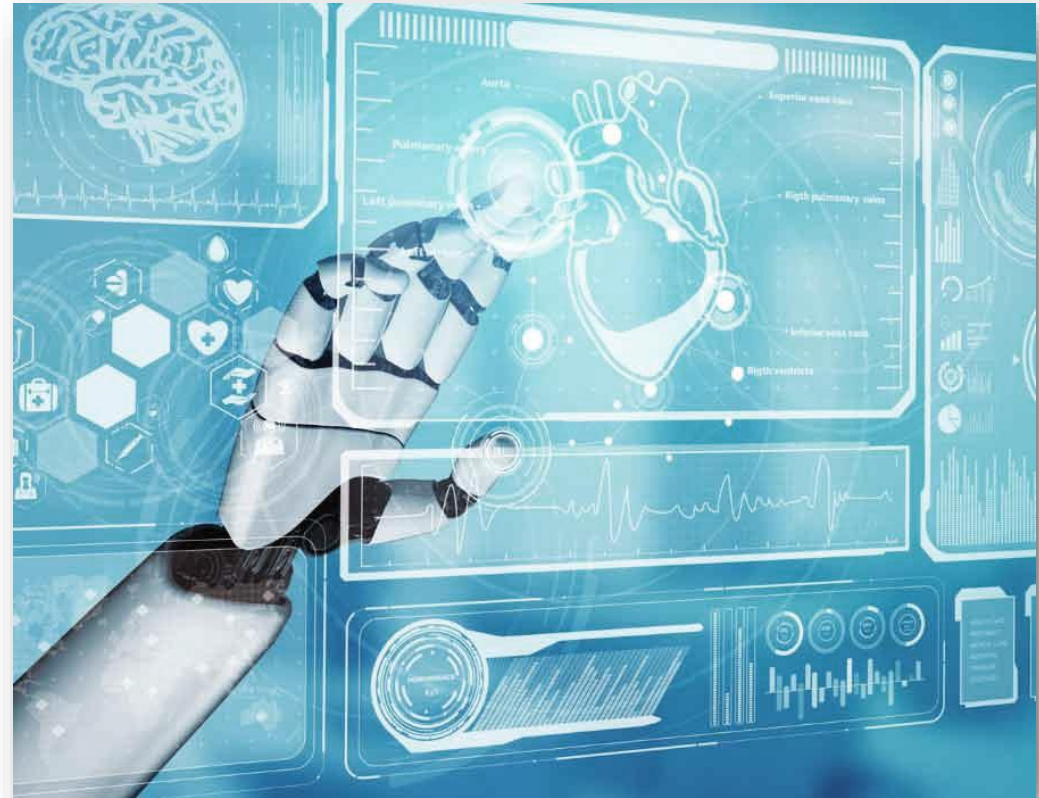
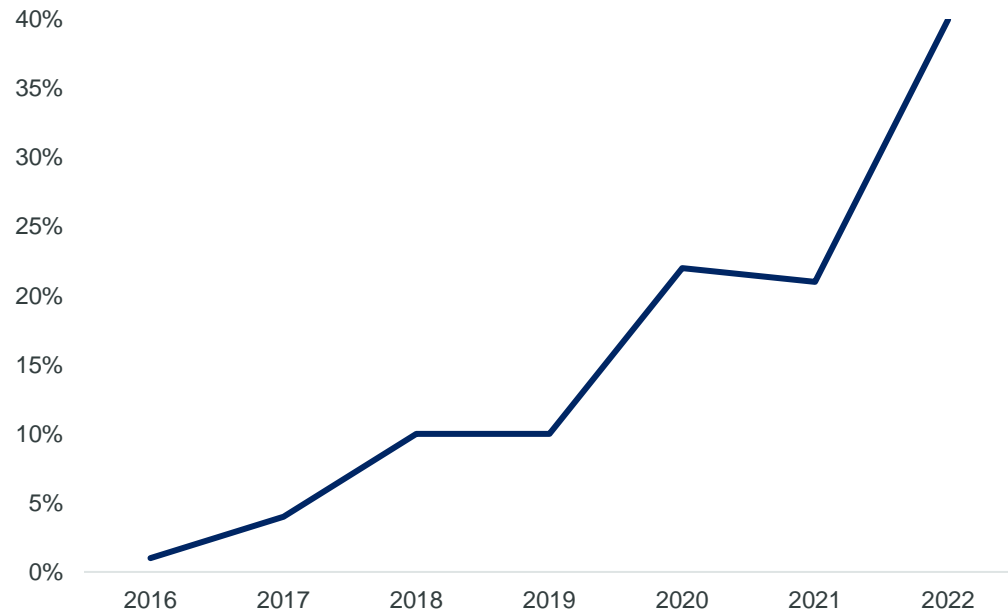
Genius Cervical A.I.®*:

- First and **only FDA-cleared digital cytology system**, launched this year.
- Combines deep-learning-based **artificial intelligence** with **advanced volumetric imaging technology**.
- **28% reduction in false negatives** of high-grade squamous intraepithelial and more severe lesions compared to microscopic review.



Growing number of **A.I. enabled device approvals**

A.I. enabled device approvals as a % of all class II radiology devices approved by the FDA*



Intuitive Surgical: artificial intelligence improves robotic surgery

- **Assessing** the execution of a **surgical procedure** is not straightforward.
- Robotic-assisted surgery creates a **wealth of (digital) data**.
- **Surgeons can compare this with their own modus operandi** and learn/improve their skills very effectively via modules that Intuitive is making available.
- 3D modeling with A.I. helps surgeons pre-operatively understand a patient's specific anatomy for better surgical planning on the Da Vinci robot.



04

Outlook and conclusions



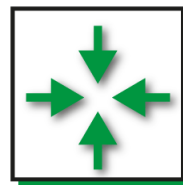
Candriam supports cancer research

10%

Candriam pledges maximally 10% of the net management fees of the Candriam Equities L Oncology Impact sub-fund to leading cancer research institutes



GEORG SPEYER HAUS
INSTITUT FÜR TUMORBIOLOGIE
UND EXPERIMENTELLE THERAPIE



FONDAZIONE IRCCS
ISTITUTO NAZIONALE
DEI TUMORI



€3.3m
donated
since 2018



krebsforschung schweiz
Damit Heilung zur Regel wird.



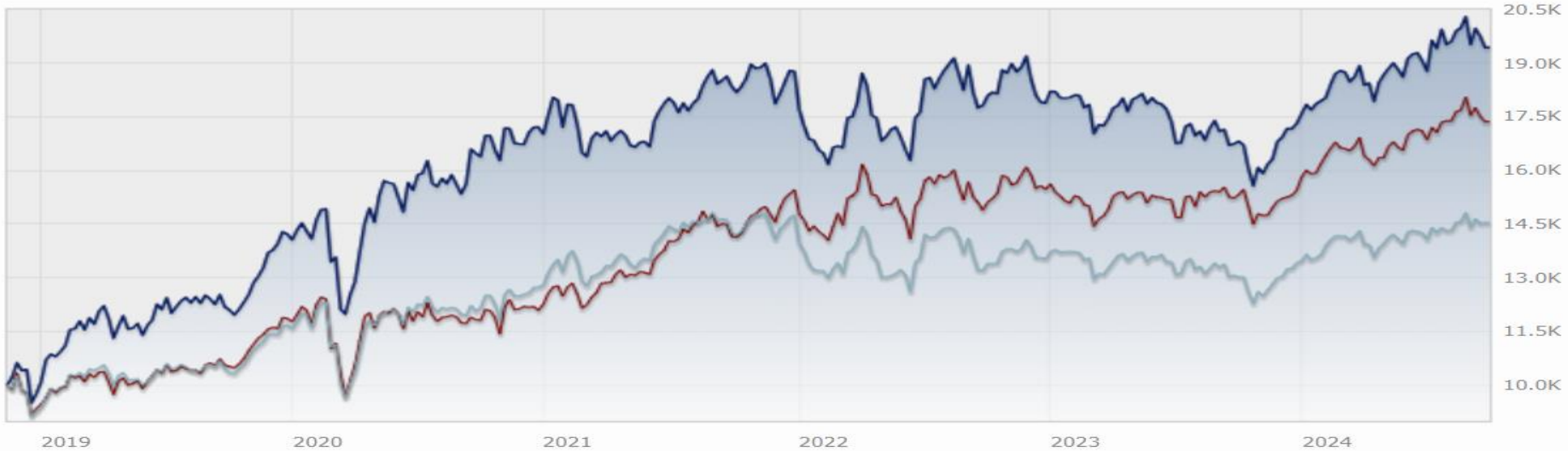
Track Record Oncology Impact – Since Inception

Grafico crescita (EUR) 29-09-2024

■ Candriam Eqs L Onclogy Impct C USD Cap : 19.437,66

■ Morningstar Gbl Health TME NR U... : 17.365,92

■ Azionari Settore Salute : 14.544,09



+95%
Oncology Strategy

+74%
Helathcare Equity

+46%
Category Equity.
Healthcare Sector

Retail Class	Since Inception	2019	2020	2021	2022	2023	2024
Candriam Equities L Oncology Impact	+94.4%	+42.9%	+20.5%	+10.3%	-4.7%	-3.2%	+12.7%

Fund: CANDRIAM Equities L Oncology Impact - retail Class- Perf in Euro - LU1864481467
 Data as at 30/09/2024. The fund is actively managed and the investment process implies referring to a benchmark index (MSCI World Health Care (Net Return)©). The official reference index is the MSCI World NR© (since 24/11/2020). Past performance is no guarantee of future results and is not constant over time. © 2024 MSCI Inc. All rights reserved. For further details on risks associated with investing in these strategies, a general description and explanation of the various risk factors is available in the section Risk Factors of the relevant Prospectuses. [The prospectus is available on Candriam.com: Fund Detail](#)

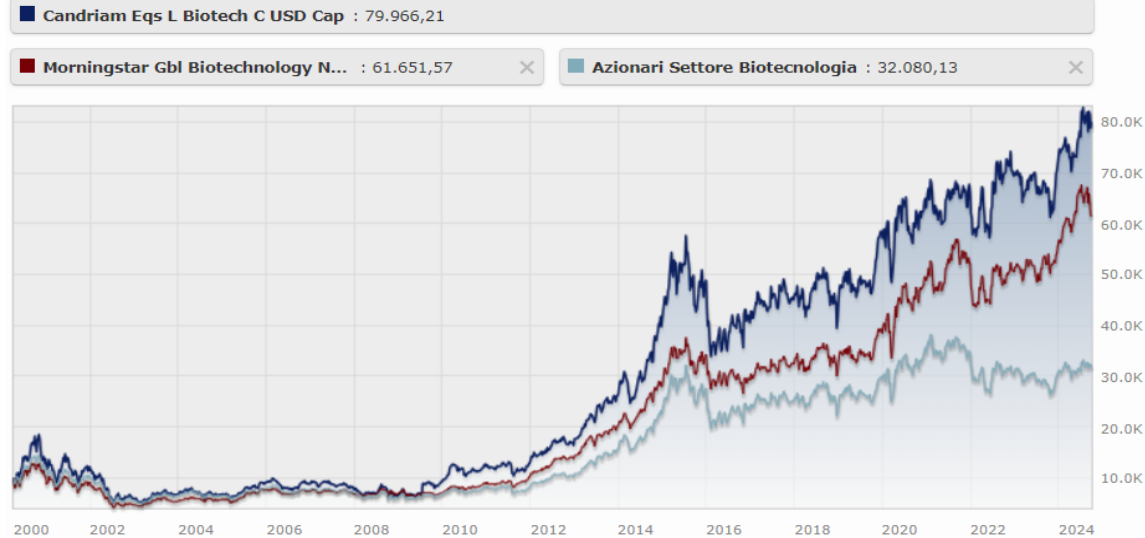
©2024 Morningstar. All rights reserved. The information contained herein: (1) is the property of Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not guaranteed to be accurate, complete, or timely. The quality of the ranking, award or label obtained by the fund or management company depends on the quality of the issuing institution and the ranking, award or label does not guarantee the future performance of the fund or management company. For further details on the risks associated with investing in these strategies, a general description and explanation of the various risk factors can be found in the section. ©2024 Morningstar. All rights reserved. The information contained herein: (1) is the property of Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not guaranteed to be accurate, complete, or timely. The quality of the ranking, award or label obtained by the fund or management company depends on the quality of the issuing institution and the ranking, award or label does not guarantee the future performance of the fund or management company. For further details on the risks associated with investing in these strategies, a general description and explanation of the various risk factors can be found in the section.



Biotechnology : Performance Strategy

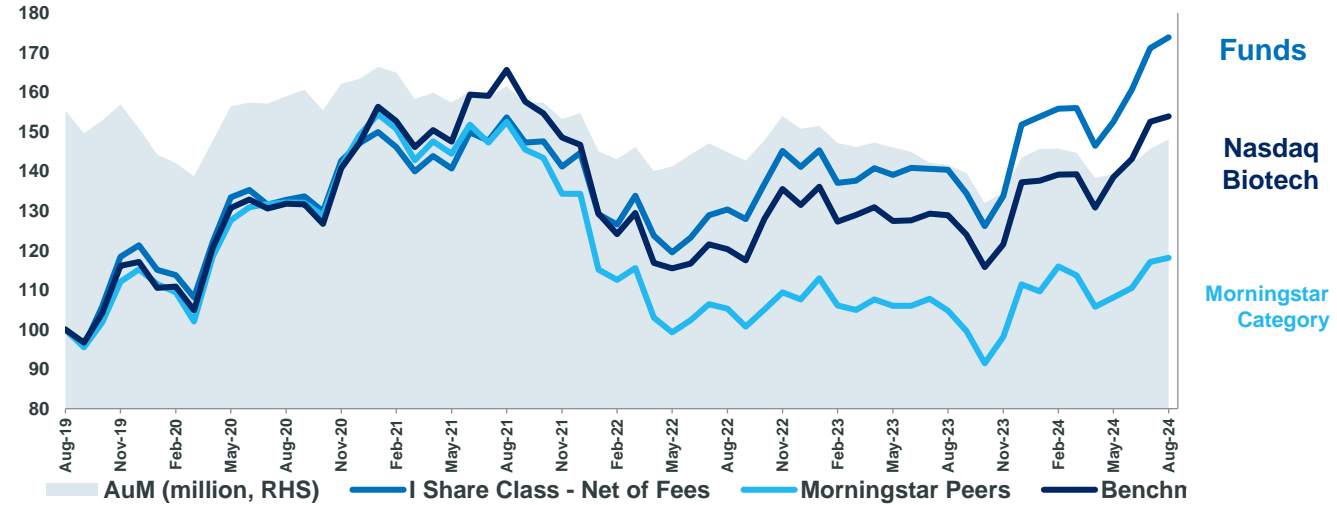
Performance From 2000 –Retail Class- LU0108459040

Grafico crescita (EUR) 04-10-2024



Funds – CANDRIAM Equities L Biotechnology - LU0108459040 Retail Class
 Morningstar Category: EAA Fund Sector Equity Biotechnology - Equity Market: Morningstar Global Biotechnology NR USD - Total Return
 ©2024Morningstar. All Rights Reserved. The information contained here: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. The quality of the ranking, award or label obtained by the fund or the management company depends on the quality of the issuing institution and the ranking, award or label does not guarantee the future results of the fund or the management company. For further details on risks associated with investing in these strategies, a general description and explanation of the various risk factors is available in the section Risk Factors of the relevant Prospectuses. [The prospectus is available on Candriam.com: Fund Detail.](#)

Cumulative Performance & AuM over 5 years



Past performance is no guarantee of future results and is not constant over time.

Monthly data as at 31/08/2024. I Share Class USD, Net of fees. The fund is actively managed and the investment process implies referring to a benchmark index the NASDAQ Biotechnology Index NR ©. Past performance is no guarantee of future results and is not constant over time. Performances expressed in a currency other than that of the investor's country of residence are subject to exchange rate fluctuations, with a negative or positive impact on gains. If the present document refers to a specific tax treatment, such information depends on the individual situation of each investor and may change. Morningstar Category: EAA Fund Sector Equity Biotechnology ©2024Morningstar. All Rights Reserved. The information contained here: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. The quality of the ranking, award or label obtained by the fund or the management company depends on the quality of the issuing institution and the ranking, award or label does not guarantee the future results of the fund or the management company. For further details on risks associated with investing in these strategies, a general description and explanation of the various risk factors is available in the section Risk Factors of the relevant Prospectuses. [The prospectus is available on Candriam.com: Fund Detail.](#)

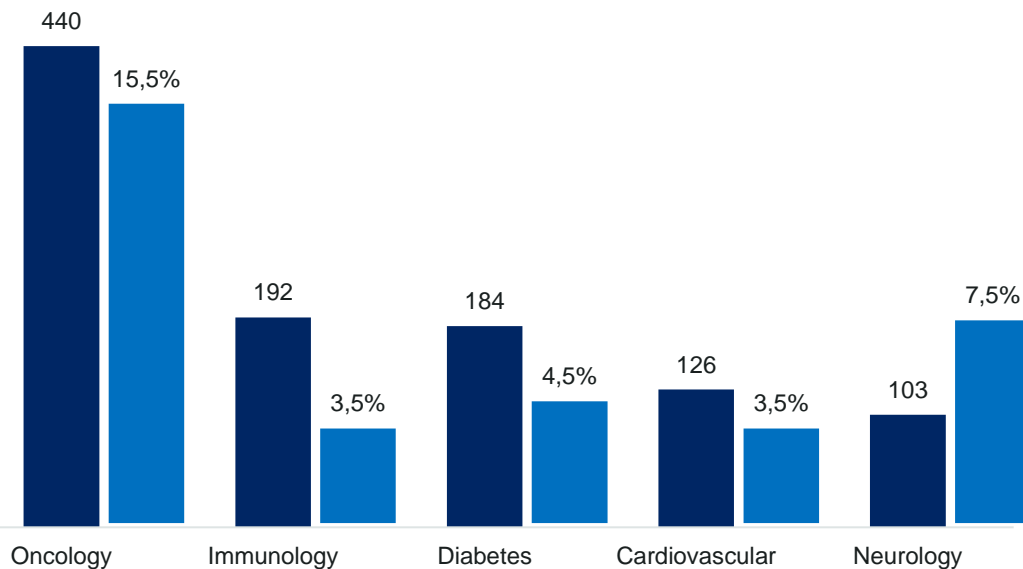
retail Class – LU0108459040 Update to 30 sept 2024	YTD	2023	2022	3 Y	5 Y	10 Y
CANDRIAM Equities L Biotechnology	+10.4%	+3.5%	+5.0%	+24.0%	+71.6%	+138.9%
Biotech Fund Category	+2.8%	+1.7%	-12.8%	-9.9%	+28.5%	+61.0%
Delta	+7.6%	+1.8%	+17.8%	+33.9%	+43.1%	+77.9%

Morningstar Rating	
Overall	★★★★★
3 Years	★★★★★
5 Years	★★★★★



Continued R&D investments lead to success in the clinic and growing sales

Top 5 therapy areas in 2028 in terms of global spending (\$bn) & 5-year CAGR*



Growth drivers in addition to increased early diagnoses and wider treatment availability



+100

drug approvals including cell therapy, RNA therapy and immuno-oncology treatments.



Precision medicine

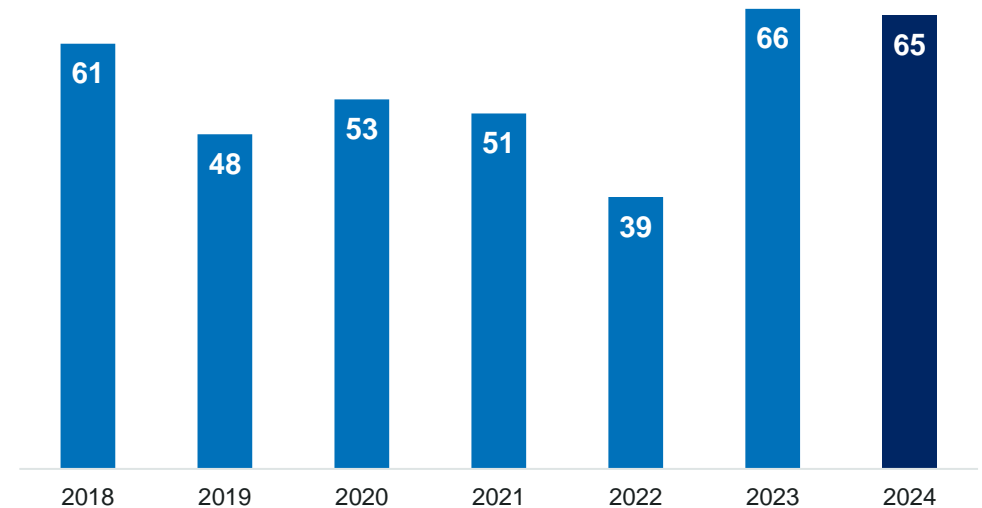
including personalized treatment determined by biomarker testing & next-gen sequencing or Car T-cell therapies.

Source: Source: IQVIA Forecast Link, IQVIA Institute, December 2023 * median growth forecast; Covid vaccine and therapeutics are not included. Oncology includes therapeutic oncology only and not supportive care. Immunology includes small molecule and biologic treatments for a range of diseases. Neurology includes central nervous system disorder treatments and mental health treatments but excludes pain management and anesthesia. Pain includes narcotic and non-narcotic analgesics, muscle relaxants and migraine treatments. Cardiovascular includes hypertension and other cardiovascular treatments with the exception of lipid regulators.

2023 was a record year for new drug approvals



Historical new approvals by the FDA and predicted approvals for 2024 by Evaluate Pharma



M&A activity should remain high



Balance sheets



Patent expiration

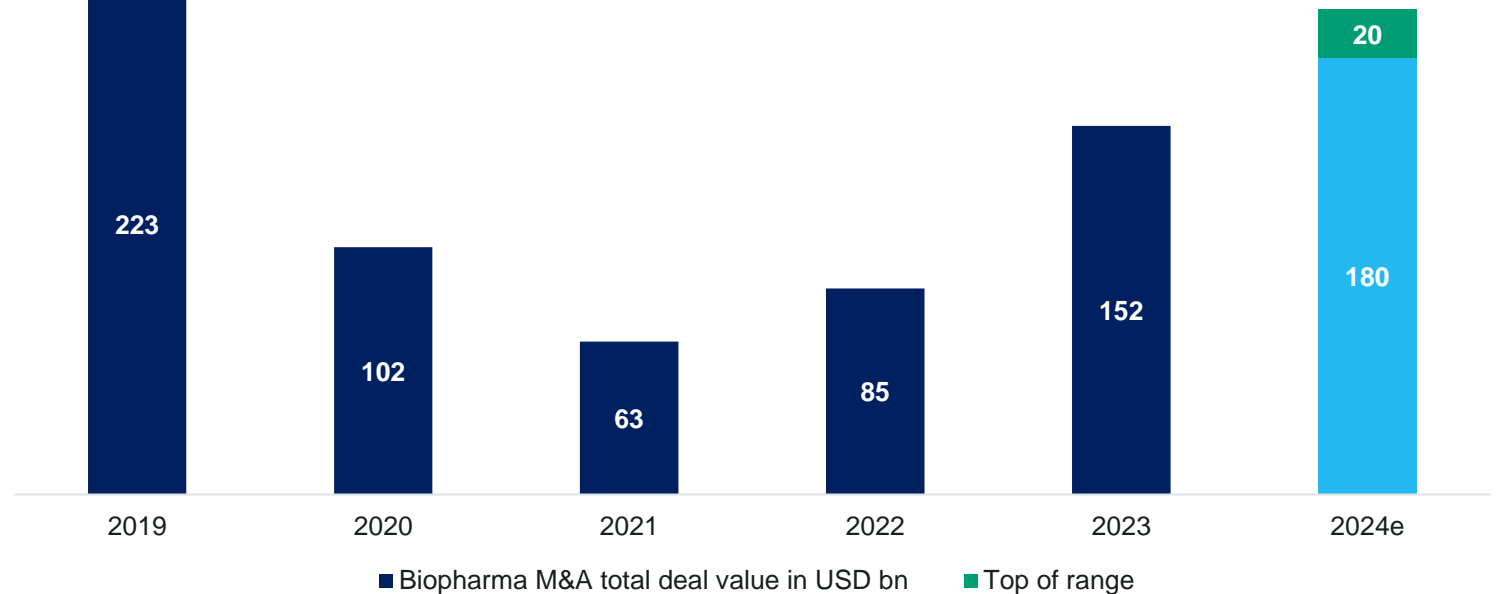


Drive innovation



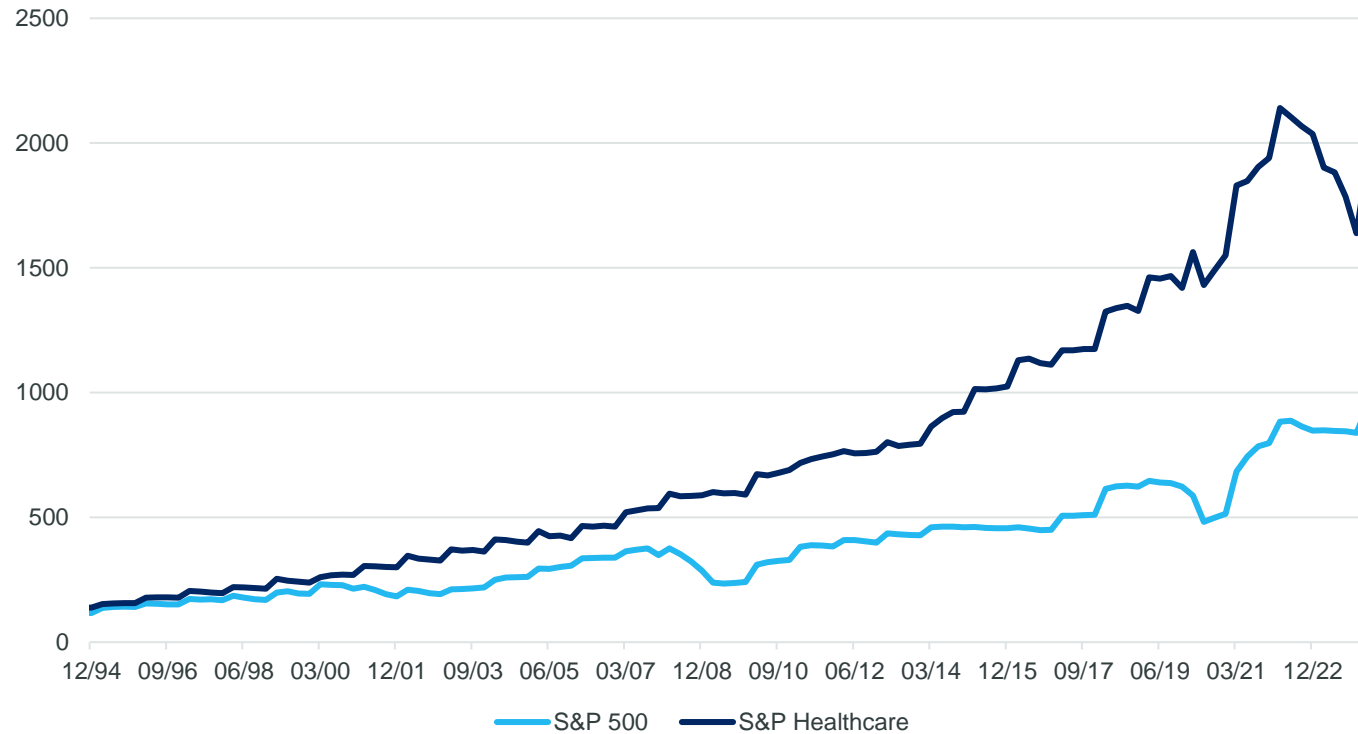
Opportunities in fast-growing markets

Total value of historical and expected transactions in the biopharmaceutical sector in billions of dollars

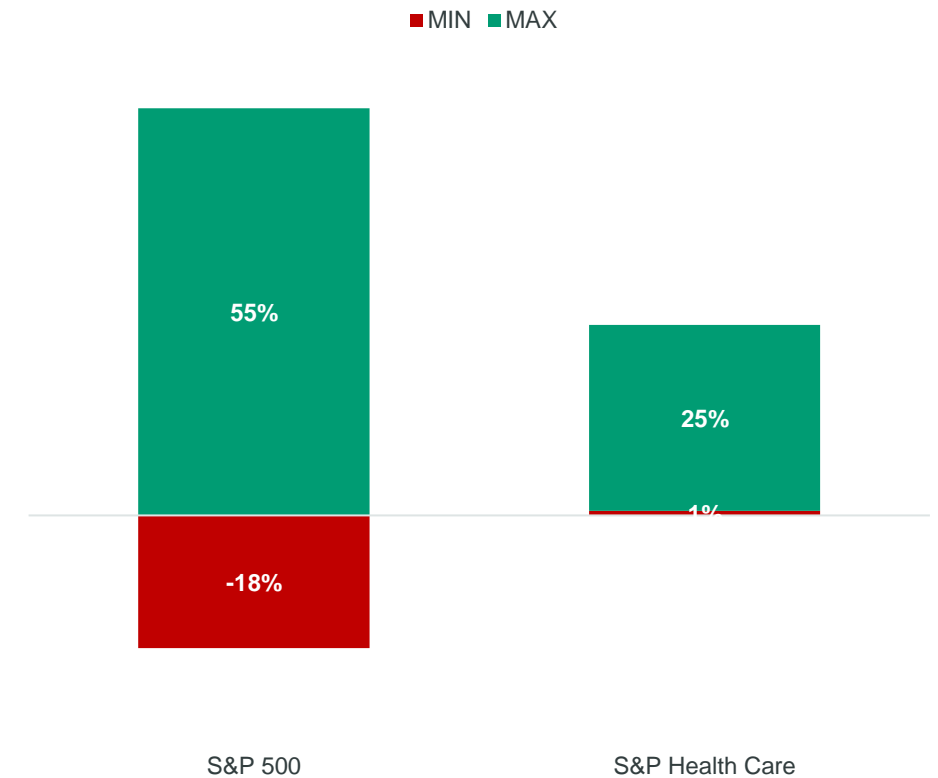


A sector that is less dependent on the economic environment

Health care's earnings are far more stable than the S&P 500 Index (Forward EPS)

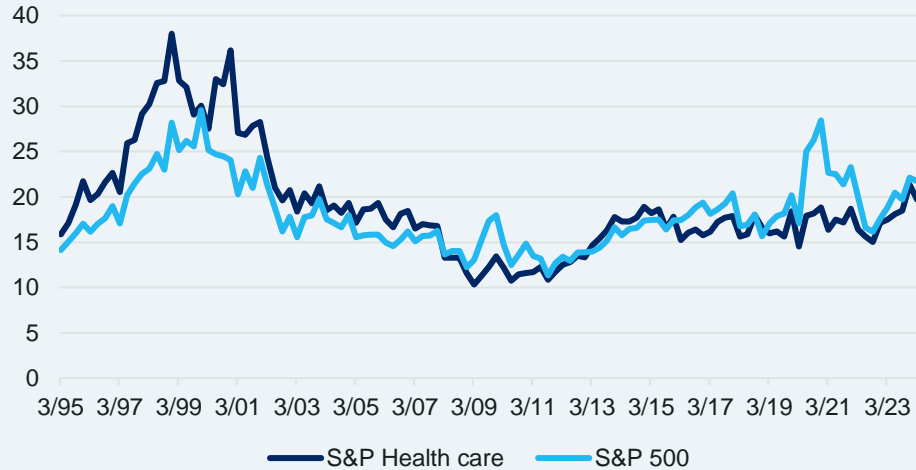


Forward EPS Y/Y (1995 – 2022*)

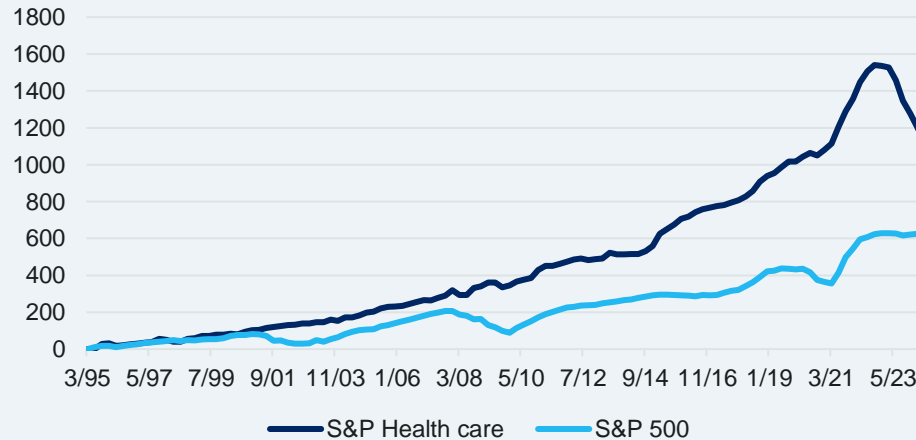


Valuations are reasonable today

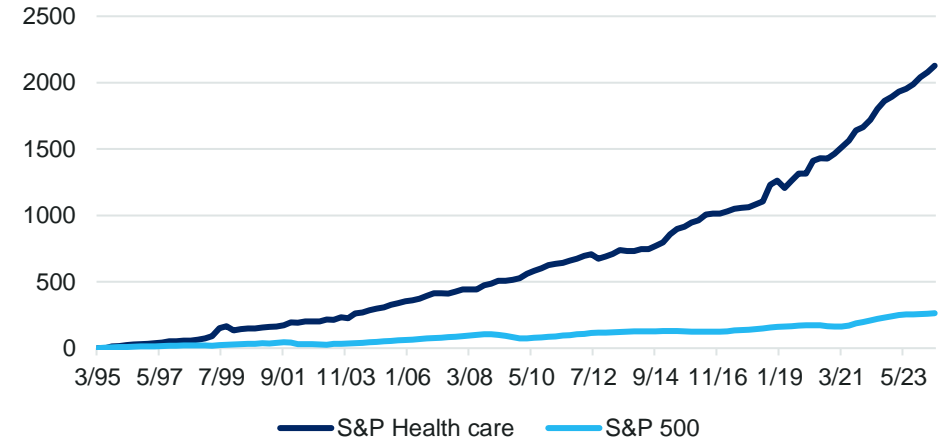
Est. price/earnings



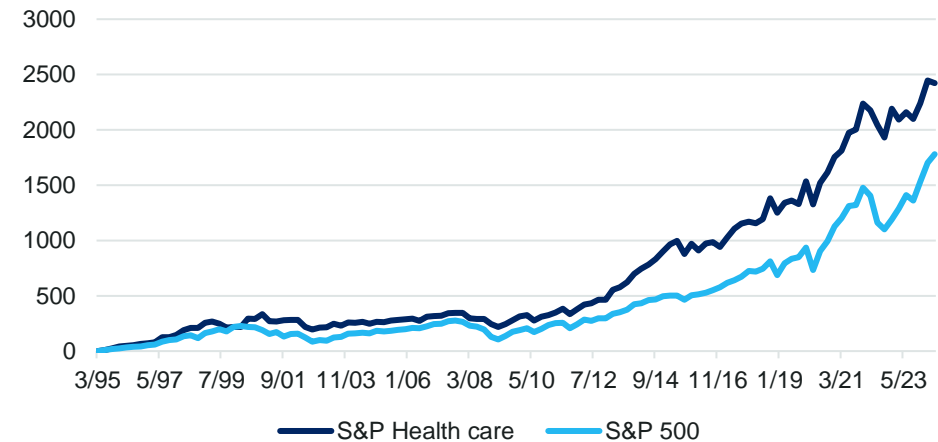
12-month trailing earnings per share (% change since rebased 31/03/1995)



Sales/share (% change since 31/03/1995)

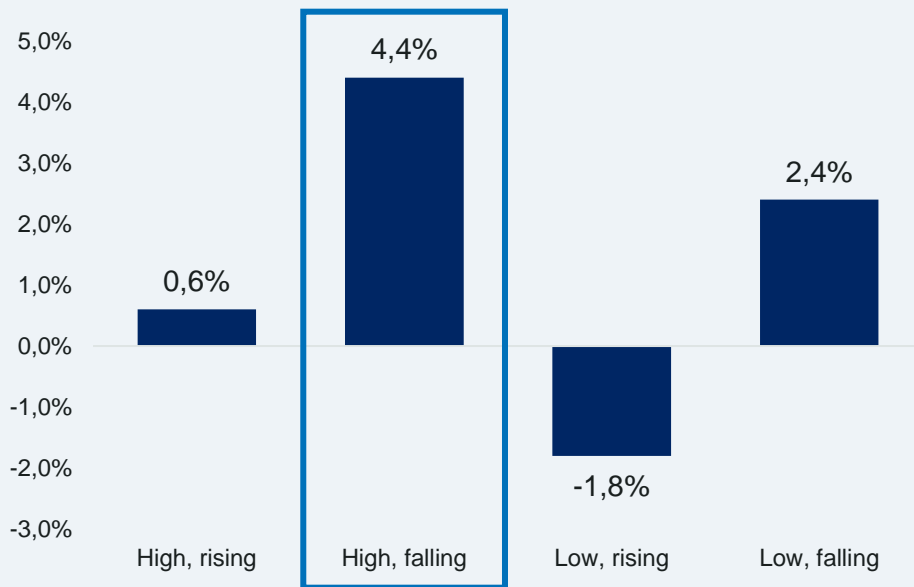


Return comparison (% since 31/03/1995 – end of June 2024)

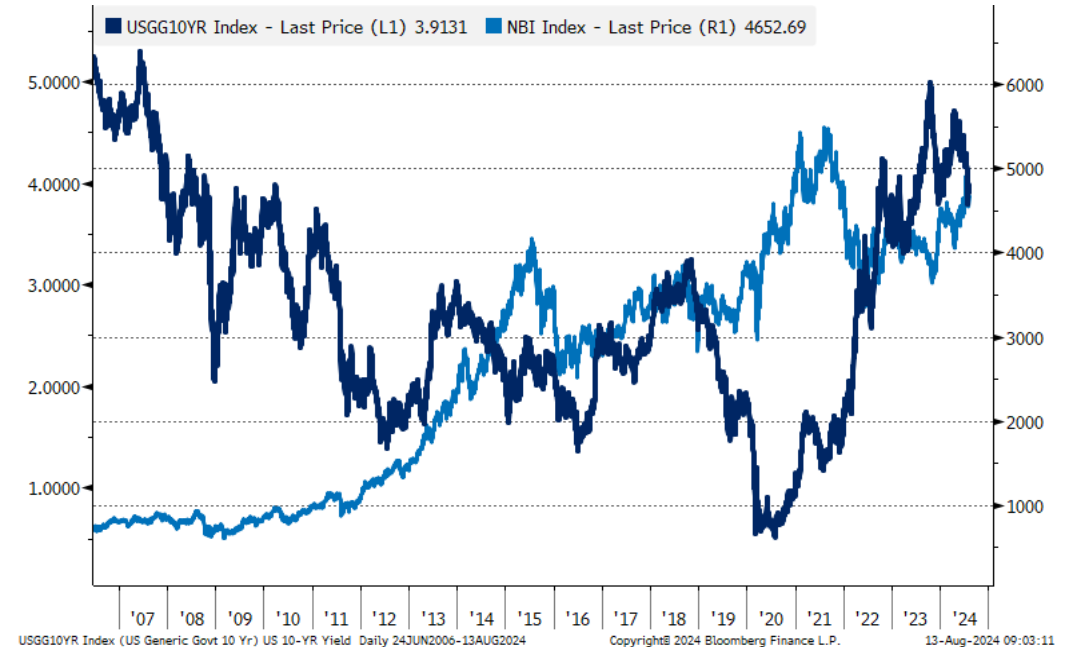


Environment supportive of biotechnology sector performance

Biotechnology relative performance during different interest rate regimes (avg quarterly)*



Nasdaq Biotechnology Index vs. 10-year US yield from 2006 to present.



Past performance is no guarantee of future results and is not constant over time

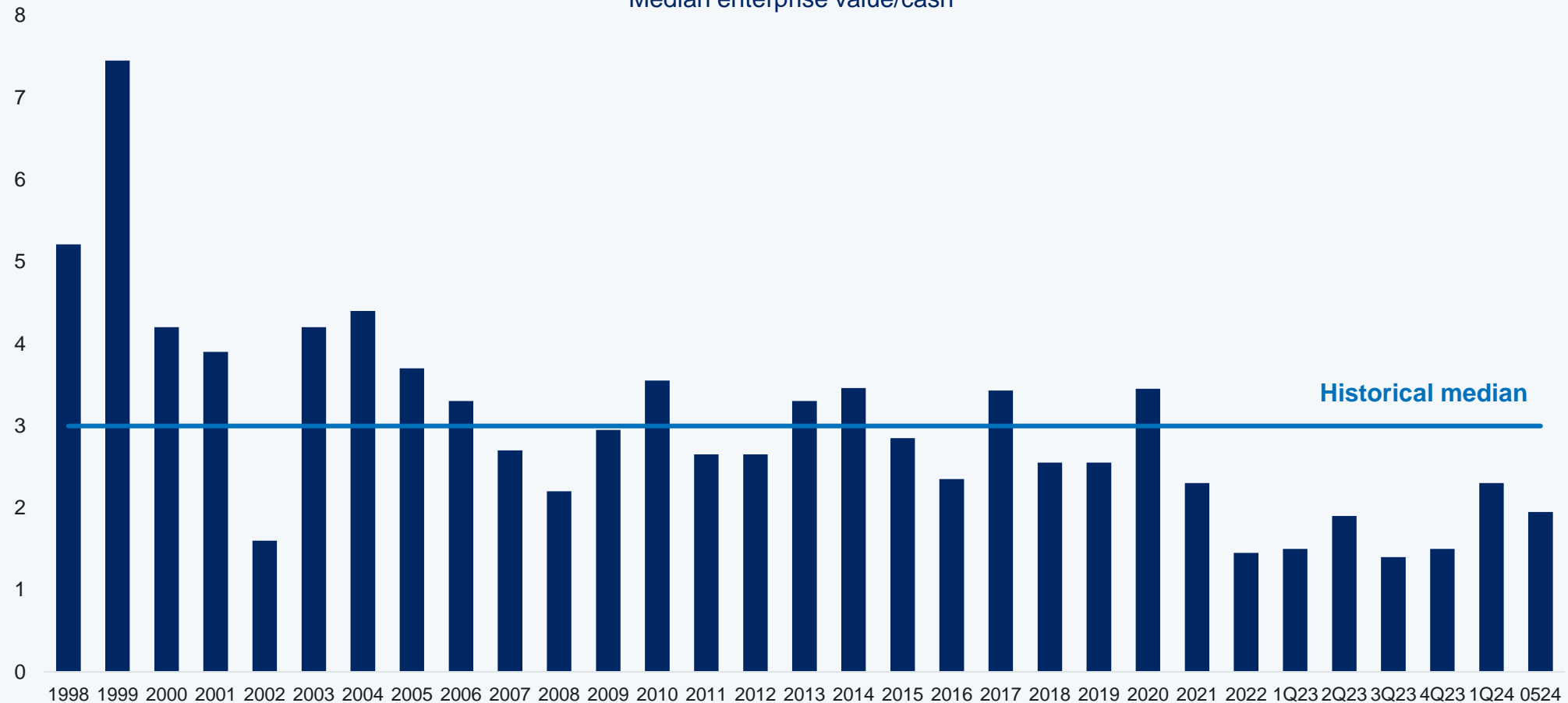
Sources: Candriam, * *Compusat, Bloomberg, MS Research. Based on 10-year yield. High/low rates defined as current level vs. 5-year rolling median (quarterly rate of change). Performance of Nasdaq Biotechnology vs. S&P 500 Equal Weight.



Valuation clinical-stage companies: **reasonable from a historical view**

Small/mid-cap biotechnology

Median enterprise value/cash



Source: Candrium, Wells Fargo Securities, LLC and ©Factset as at 31/05/2024



Conclusion

- › **Innovation and investments in the oncology sector are thriving, leading to better outcomes for patients combined and double-digit sales growth rates**
- › **Drug approvals are on track in 2024, oncology continues to take an important share**
- › **A.I. is impacting the healthcare sector and supports innovation and improved outcomes**
- › **Macro-economic environment and valuations are supportive for the healthcare sector**





This is a marketing communication. Please refer to the prospectus of the funds and to the key information document before making any final investment decisions. This marketing communication does not constitute an offer to buy or sell financial instruments, nor does it represent an investment recommendation or confirm any kind of transaction, except where expressly agreed. Although Candriam selects carefully the data and sources within this document, errors or omissions cannot be excluded a priori. Candriam cannot be held liable for any direct or indirect losses as a result of the use of this document. The intellectual property rights of Candriam must be respected at all times, contents of this document may not be reproduced without prior written approval.

Warning: Past performance of a given financial instrument or index or an investment service or strategy, or simulations of past performance, or forecasts of future performance does not predict future returns. Gross performances may be impacted by commissions, fees and other expenses. Performances expressed in a currency other than that of the investor's country of residence are subject to exchange rate fluctuations, with a negative or positive impact on gains. If the present document refers to a specific tax treatment, such information depends on the individual situation of each investor and may change.

In respect to money market funds, please be aware that an investment in a fund is different from an investment in deposits and that the investment's principal is capable of fluctuation. The fund does not rely on external support for guaranteeing its liquidity or stabilizing its NAV per unit or share. The risk of loss of the principal is borne by the investor.

Candriam consistently recommends investors to consult via our website <https://www.candriam.com> the key information document, prospectus, and all other relevant information prior to investing in one of our funds, including the net asset value ("NAV") of the funds. Investor rights and complaints procedure, are accessible on Candriam's dedicated regulatory webpages <https://www.candriam.com/en/professional/legal-information/regulatory-information/>. This information is available either in English or in local languages for each country where the fund's marketing is approved.

According to the applicable laws and regulations, Candriam may decide to terminate the arrangements made for the marketing of a relevant fund at any time.

Information on sustainability-related aspects: the information on sustainability-related aspects contained in this communication are available on Candriam webpage <https://www.candriam.com/en/professional/sfdr/>. The decision to invest in the promoted product should take into account all the characteristics or objectives of the promoted product as described in its prospectus, or in the information documents which are to be disclosed to investors in accordance with the applicable law.

Notice to investors in Switzerland: The information provided herein does not constitute an offer of financial instruments in Switzerland pursuant to the Swiss Financial Services Act ("FinSA") and its implementing ordinance. This is solely an advertisement pursuant to FinSA and its implementing ordinance for financial instruments.

Swiss representative: CACEIS (Switzerland) SA, Route de Signy 35, CH-1260 Nyon. The legal documents as well as the latest annual and semi-annual financial reports, if any, of the investment funds may be obtained free of charge from the Swiss representative.

Swiss paying agent: CACEIS Bank, Montrouge, succursale de Nyon/Suisse, Route de Signy, 35, CH-1260 Nyon. Place of performance: Route de Signy 35, CH-1260 Nyon. Place of jurisdiction: Route de Signy 35, CH-1260 Nyon.

Specific information for investors in France: the appointed representative and paying agent in France is CACEIS Bank, Luxembourg Branch, sis 1-3, place Valhubert, 75013 Paris, France. The prospectus, the key information document, the articles of association or as applicable the management rules as well as the annual and semi-annual reports, each in paper form, are made available free of charge at the representative and paying agent in France.

Specific information for investors in Spain: Candriam Luxembourg Sucursal en España has its registered office at C/ Pedro Teixeira, 8, Edif. Iberia Mart I, planta 4, 28020 Madrid and is registered with the Comisión Nacional del Mercado de Valores (CNMV) as an European Economic Area management company with a branch. CNMV: 233

Specific information for investors in Austria: The appointed Paying and Information Agent in Austria is Erste Bank der oesterreichischen Sparkassen AG, Am Belvedere 1, 1100 Vienna, Austria. The prospectus, the Key Information Documents (KIDs) relating to the portfolios of the Fund, the Articles, the audited annual accounts, the semi-annual accounts as well as the issuance and redemption prices are available in Austria free of charge (in the German language) at the Austrian Paying and Information Agent.



Client Relation Offices

Amsterdam
Dubai
Frankfurt
Geneva
Zurich
Madrid
Milan
New York

Management Centers

Luxembourg
Brussels
Paris
London

