

State of Medicon Valley Report 2025

November 2025



Photo: News Oresund — Johan Wessman

Medicon Valley Alliance

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Medicon Valley: Leading life sciences cluster



Medicon Valley has emerged as one of Europe's most dynamic biopharma clusters, combining a strong and diverse pipeline with a focus on metabolic diseases, leadership in biologics, rising clinical trial activity, and great fundraising momentum backed by nearly \$10B. Its strengths position the region as a **premium biopharma ecosystem** for both innovation and capital in life sciences.



Pipeline

Medicon Valley is the **third most active biopharma cluster in Europe** with 429 products in active development (pre-launch). It stands out with a notably **high proportion of drugs in clinical development**. Apart from BioValley, it is the only cluster analyzed with more than 50% of its drugs in clinical development. Medicon Valley has the **second highest number of companies actively developing pipeline products in Europe**. The region's 117 companies are outranked only by the Golden Triangle with 236.



Disease area

Out of all the clusters, Medicon Valley has the highest proportion of drugs for **alimentary/metabolic diseases (27%)**, the next highest is Flanders with only **16%**. Research in Medicon Valley isn't solely focused on this therapeutic area however and instead there is a balanced portfolio. Strength in metabolic diseases is combined with capabilities in other areas, most notably oncology and neurology.



Trial activity

The number of trial initiations by sponsors headquartered in Medicon Valley rose **49%** between 2015 and 2024. This trend was not replicated in other clusters. Trials initiations fell by **15%** in the Golden Triangle and **51%** in BioValley across the same period. Medicon Valley also had more industry-sponsored trials than any other cluster. With **96% of trials industry-sponsored** there is minimal academic dependency, and the region aligns with leading clusters like the Golden Triangle and BioValley.



Modality

Medicon Valley's clinical research is focused biologics. **63%** of the drugs in clinical trials sponsored by organizations in Medicon Valley are **biological** in origin, this is **higher than any other cluster**. This dominance reflects advanced biomanufacturing capacity, deep expertise in protein engineering and antibody development.



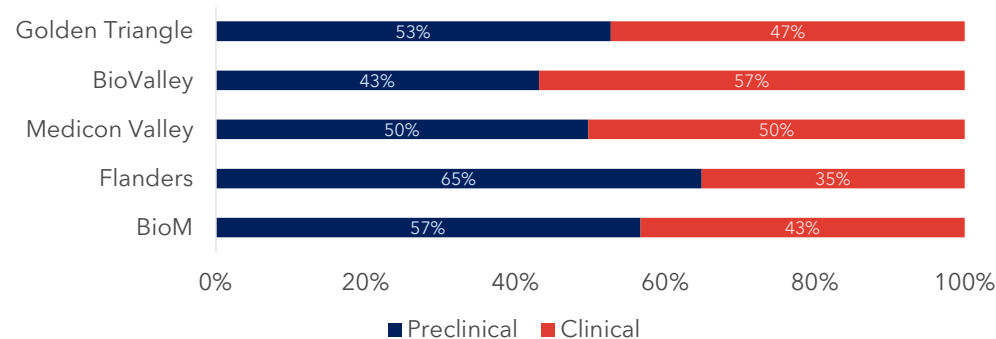
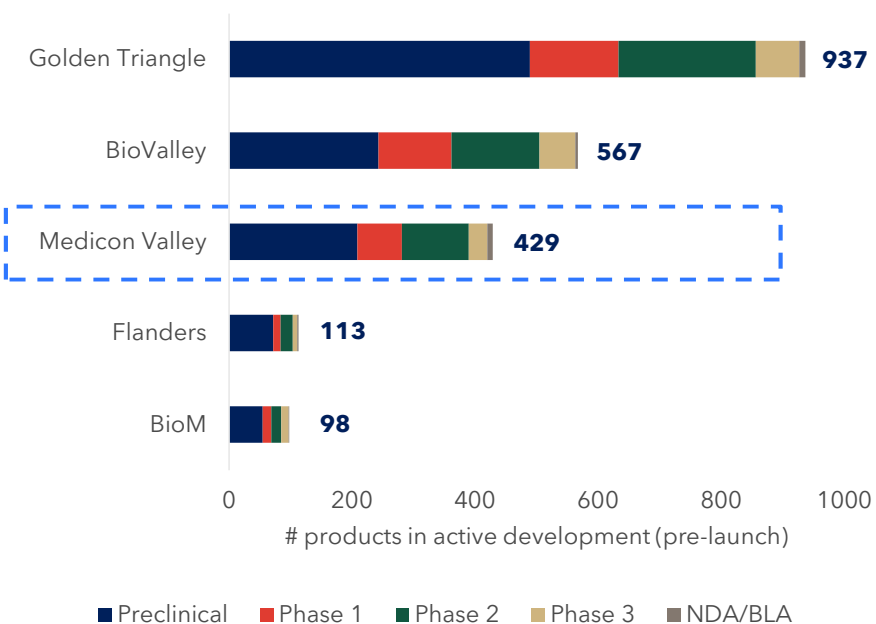
Fundraising

Medicon Valley has the most active fundraisers in the EU with **\$9.8B raised across ~130 deals since 2019**—second only to Europe's largest cluster the Golden Triangle. Medicon Valley not only far outperforms peers like BioM and Flanders but also outperforms BioValley. The large average deal size (~\$70M) signals premium company valuations, access to sophisticated investors, and the presence of mature, growth-stage biotechs capable of attracting substantial capital.

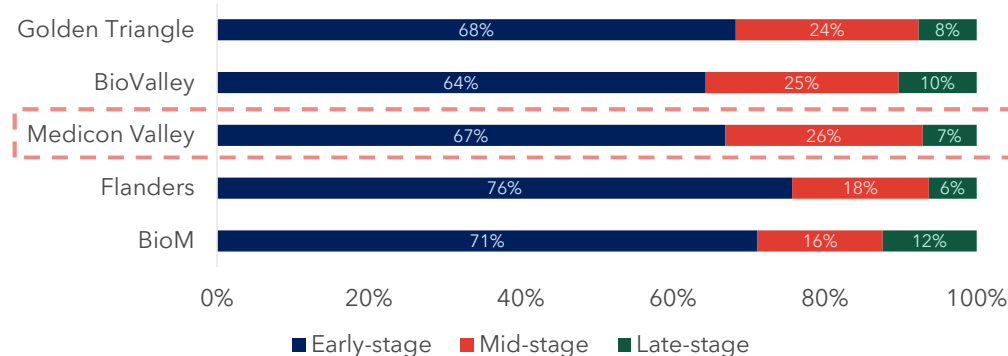
Medicon Valley is key player in European life sciences field

Medicon Valley ranks highly vs key European clusters based on pipeline size

Medicon Valley is the third most active biopharma cluster in Europe with 429 products in active development (pre-launch) and is outranked only by the Golden Triangle with 937 and BioValley with 567.



Medicon Valley stands out with a notably high proportion of drugs in clinical development. Apart from BioValley, it is the only cluster with **more than 50% of its drugs in clinical development**. This maturity signals strong potential for future regulatory approvals.



A closer look reveals that Medicon Valley has the highest proportion of drugs in **mid-stage clinical development** among the five clusters. This positions the region as a strong contender for near- to mid-term value creation, as assets in Phase 2 are often pivotal in attracting licensing and partnership opportunities.

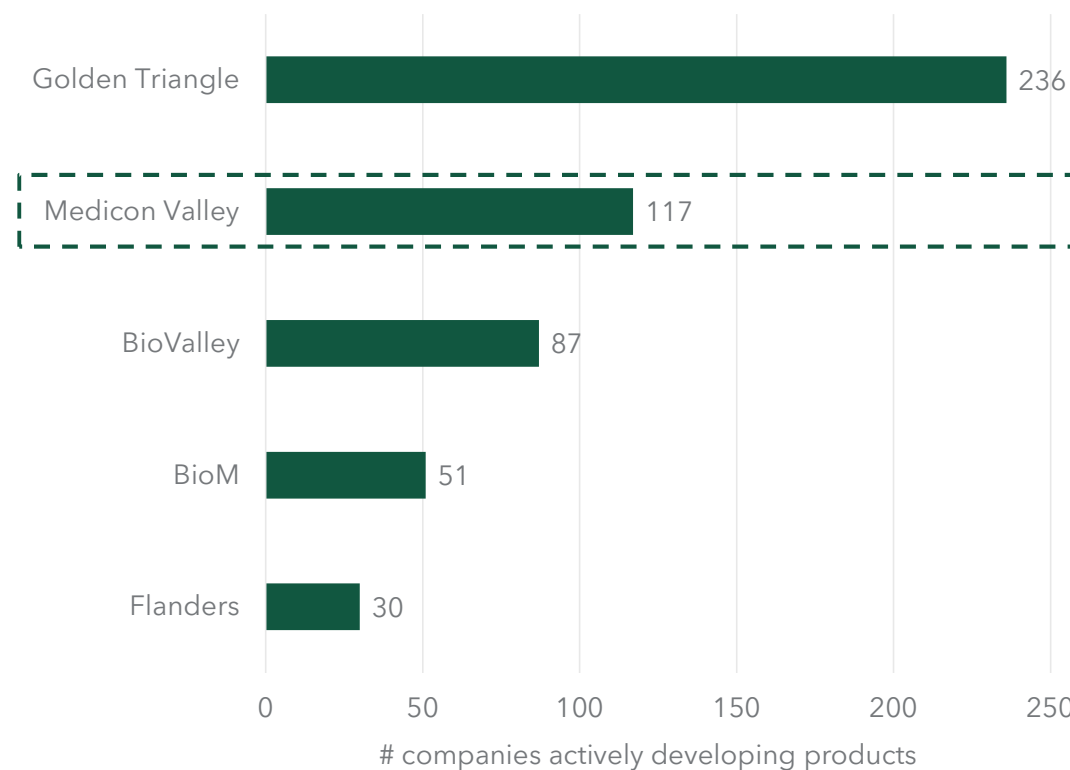
The analysis is based on data from Citeline's Pharmaprojects obtained in July 2025. Pharmaprojects tracks industry-sponsored development only. Only companies with their headquarters in the selected European clusters have been included in this analysis. Subsidiaries are not counted as separate companies but are captured under the parent company. Early-stage: Preclinical stage + Phase 1, mid-stage: Phase 2, late-stage: Phase 3.

Medicon Valley is key player in European life sciences field

Medicon Valley contains a large and diverse set of companies

Medicon Valley has the **second highest number of companies actively developing pipeline products**. The region's 117 companies are outranked only by the Golden Triangle with 236.

The diverse ecosystem of companies in the Medicon Valley, including a large community of start-up VC-backed biotechs in Skåne and commercial-stage biopharmas in the Danish side of Medicon Valley should ensure the region is well positioned for future growth. Interestingly, while there are more products being developed in BioValley, this activity is split across far fewer companies.



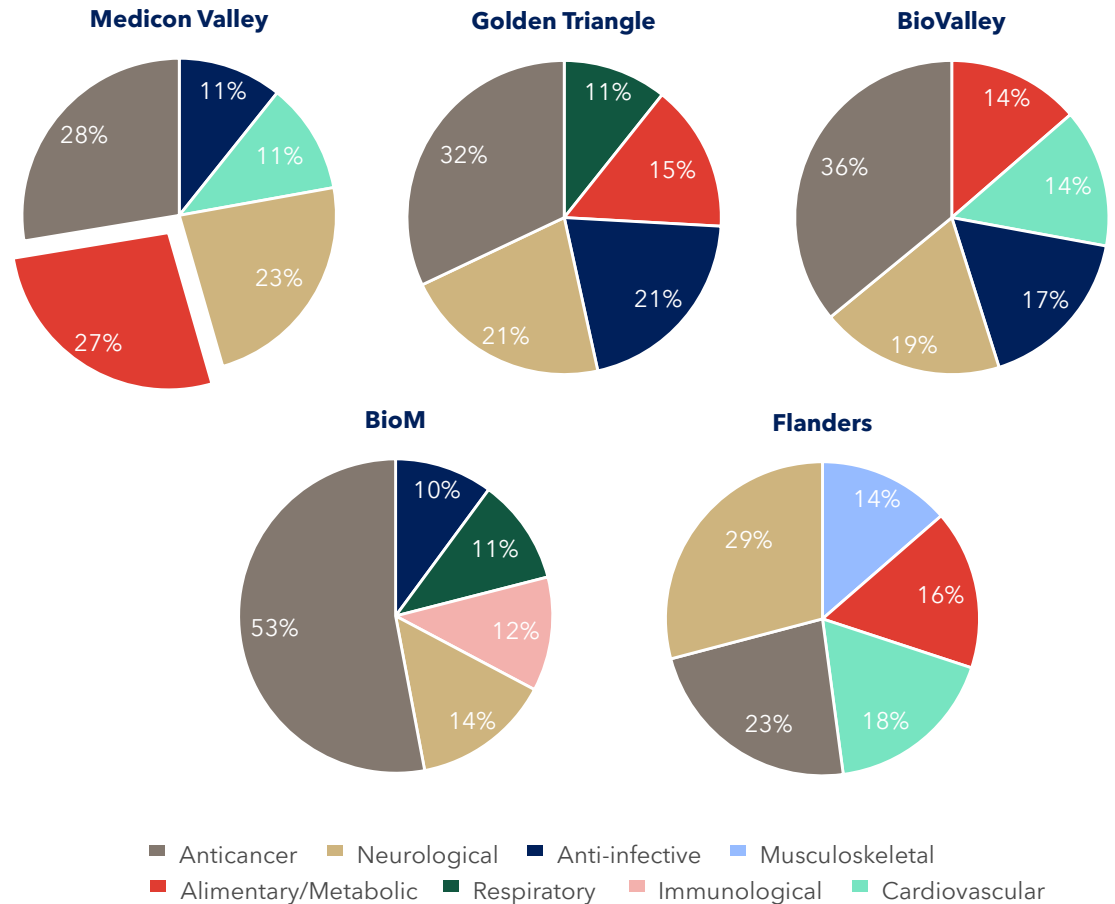
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Medicon Valley has balanced portfolio

Medicon Valley is strong in multiple therapeutic areas

Out of all the clusters, Medicon Valley has the highest proportion of drugs for **alimentary/metabolic** diseases (**27%**), the next highest is Flanders with only **16%**. This metabolic strength, combined with balanced capabilities across other areas, oncology and neurology in particular, positions Medicon Valley as ideal for companies seeking both specialized metabolic expertise and diversified partnership opportunities.

Therapeutic area breakdown of drug portfolio by cluster

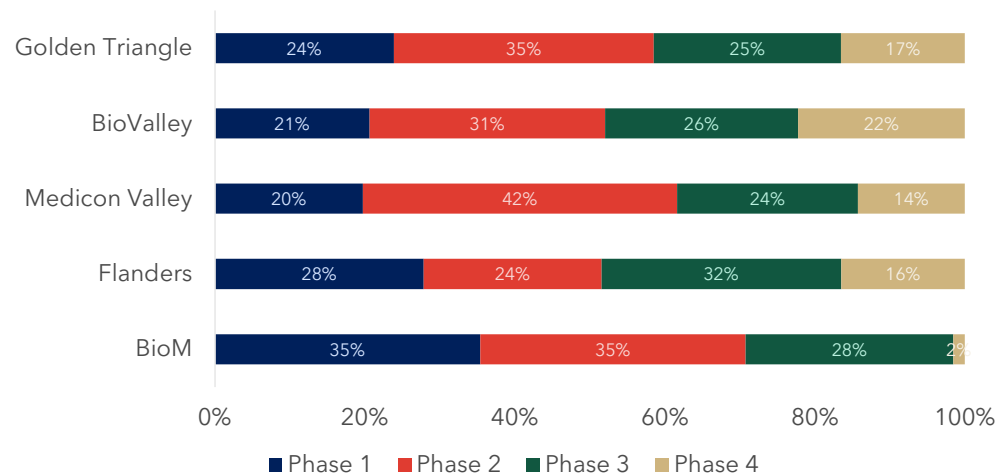
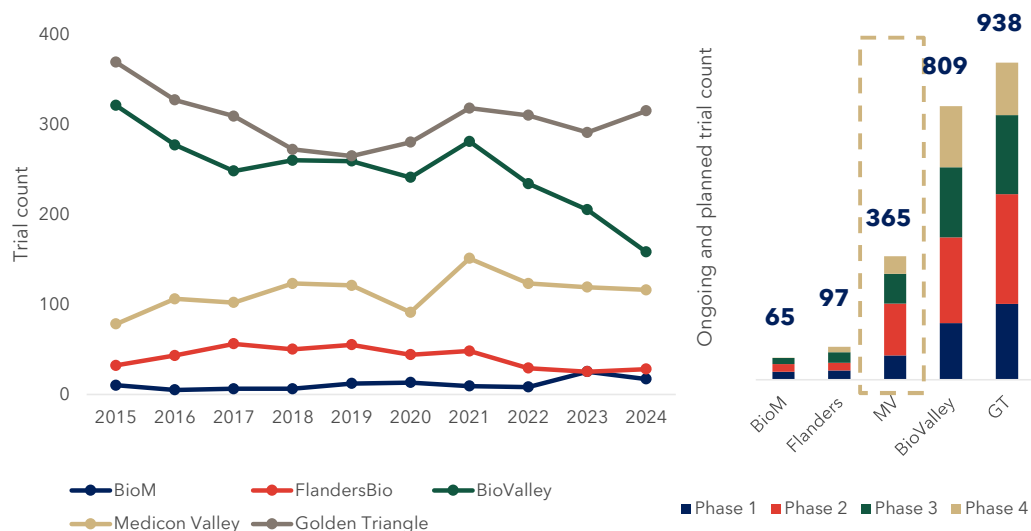


The analysis is based on data from Citeline's Pharmaprojects and Trialrove obtained in July 2025. Pharmaprojects tracks industry-sponsored development only. Only companies with their headquarters in the selected European clusters have been included in this analysis. A trial may have more than one sponsor and be conducted in multiple locations.

Medicon Valley has increasing clinical presence

Apart from BioM, Medicon Valley is only cluster with more trial initiations in 2024 than 2015

The number of trial initiations by sponsors headquartered in Medicon Valley rose **49%** between 2015 and 2024. This trend was not replicated in other clusters. Trials initiations fell by **15%** in the Golden Triangle and **51%** in BioValley across the same period. Organizations in Medicon Valley currently sponsor the third-highest number of clinical trials among the five clusters, with 365 ongoing or planned studies, reflecting the region's innovation density and attractiveness as a hub for partnerships and clinical collaboration.



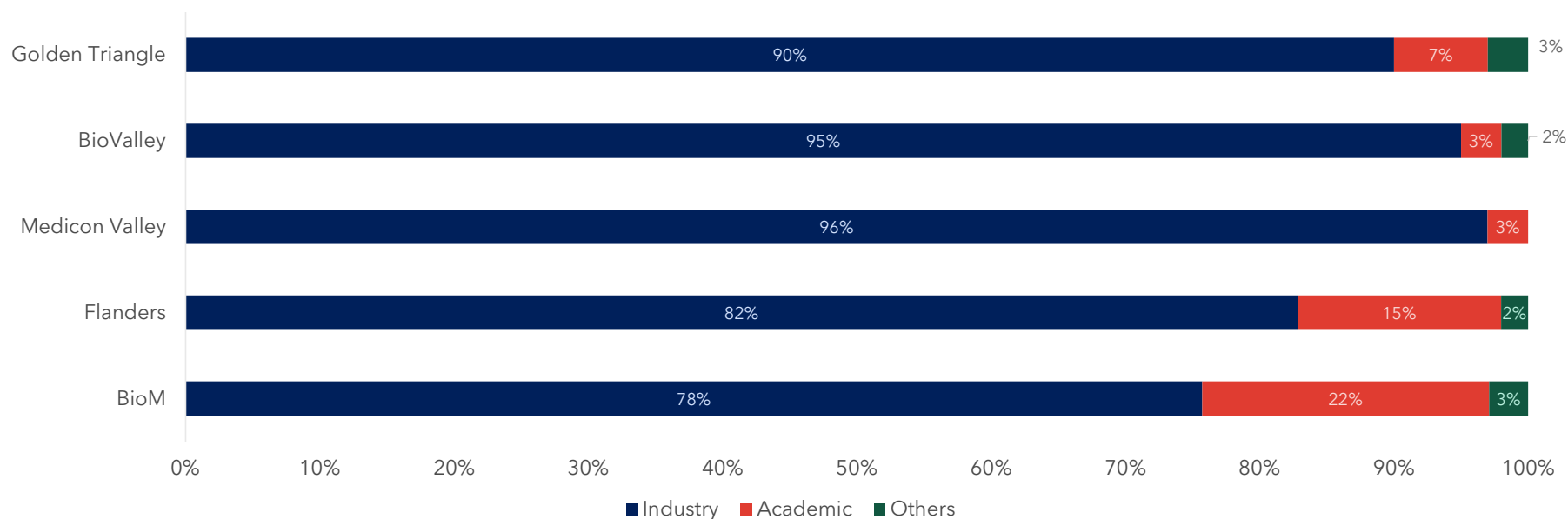
Medicon Valley stands out for its unusually **high concentration of Phase 2 trials (~40%)**, signaling strong translational capabilities, efficient preclinical-to-clinical infrastructure, and disciplined capital allocation. Unlike other clusters that skew toward early discovery or rely heavily on late-stage deals, Medicon Valley offers a balanced pipeline with a clear edge in mid-stage development.

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Industry-sponsored trials in Medicon Valley focus on biologics

Medicon Valley has more industry-sponsored trials than any other cluster

Medicon Valley's trial sponsorship profile reflects a mature, commercially-driven biopharma ecosystem. With **96% of trials industry-sponsored** there is minimal academic dependency, and the region aligns with leading clusters like the Golden Triangle and BioValley. This industry-heavy focus underscores strong private capital availability, efficient technology transfer, and a pipeline geared toward regulatory approval and market entry.



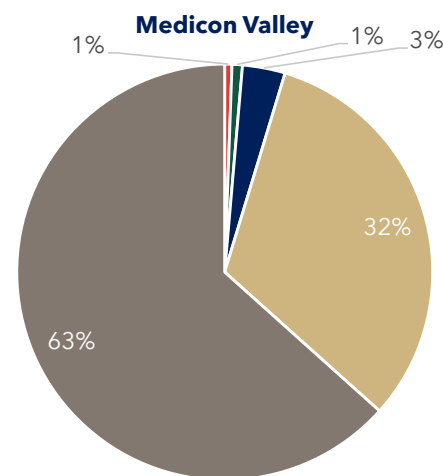
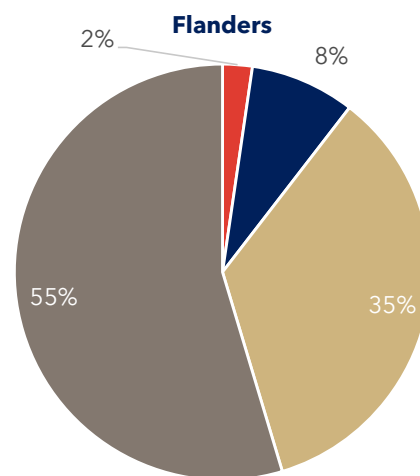
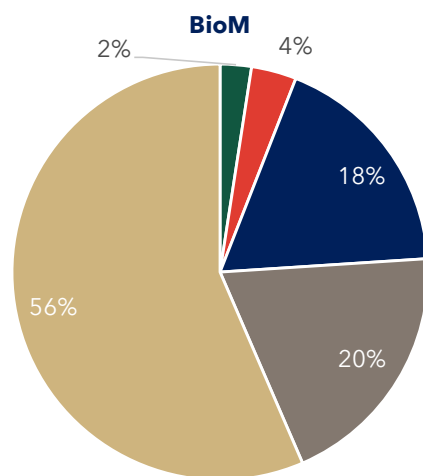
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Industry-sponsored trials in Medicon Valley focus on biologics

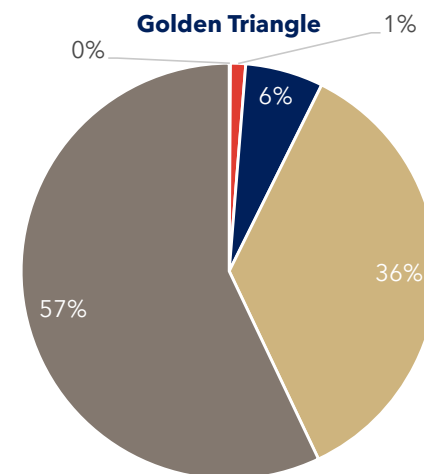
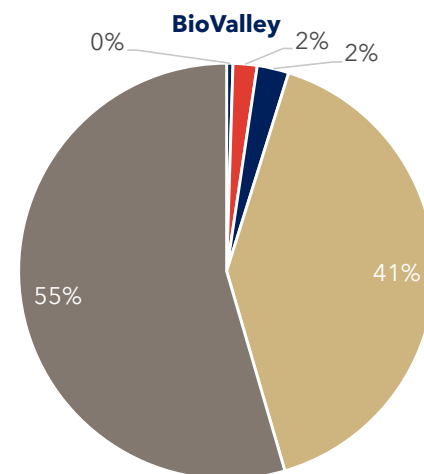
Medicon Valley leads all clusters with clinical focus on biologics

Medicon Valley's clinical research is focused on biologics. **63%** of the drugs in clinical trials sponsored by organizations in Medicon Valley are **biological** in origin, this is **higher than any other cluster**. This dominance reflects advanced biomanufacturing capacity, deep expertise in protein engineering and antibody development. Moreover, unlike other clusters with more reformulation work, Medicon Valley focuses on novel molecular entities. Medicon Valley is thus positioned as Europe's leading hub for next-generation biologics and complex therapeutic modalities.

Drug type breakdown of trials by cluster



■ Biological ■ Small molecule ■ Reformulation ■ Natural product ■ Diagnostic

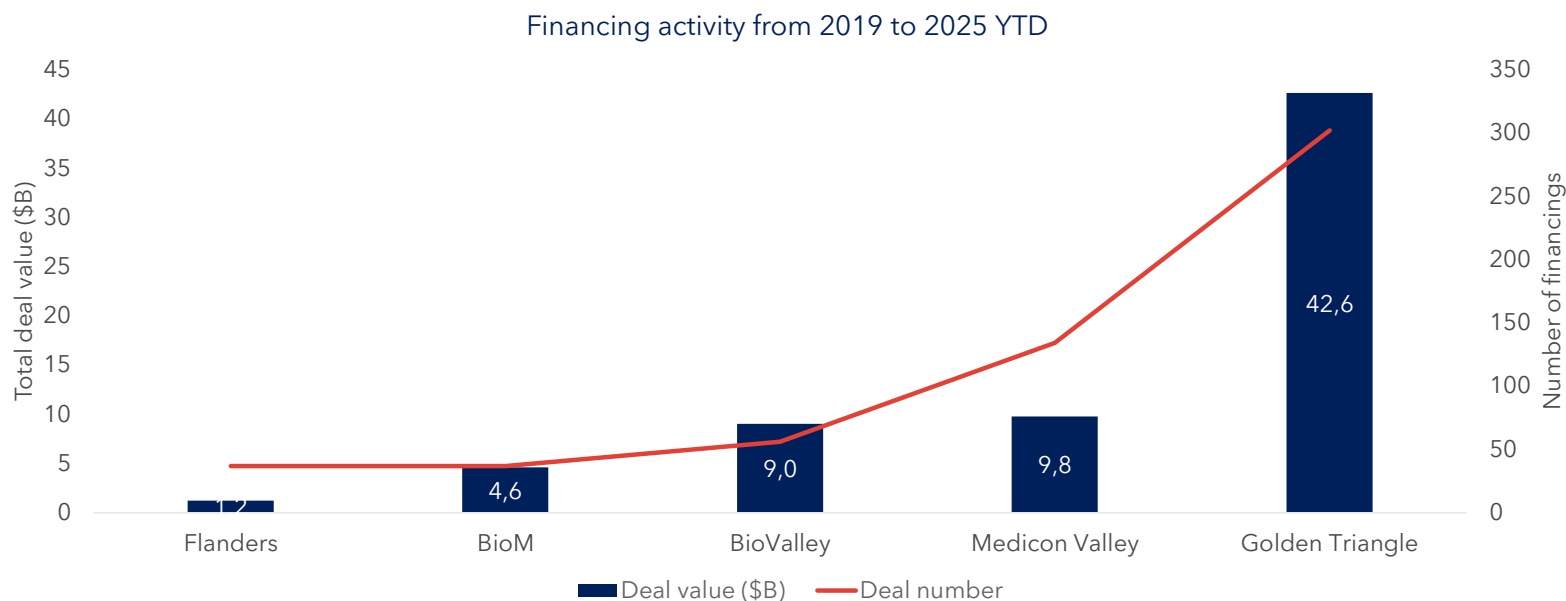


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Medicon Valley has most active fundraisers in EU

Companies in Medicon Valley have raised more than any other EU cluster

Investment in Medicon Valley has been strong, with \$9.8B raised across ~130 deals—second only to Europe’s largest cluster the Golden Triangle. This performance not only far outperforms peers like BioM and Flanders but also outperforms BioValley. The large average deal size (~\$70M) signals premium company valuations, access to sophisticated investors, and the presence of mature, growth-stage biotechs capable of attracting substantial capital. Collectively, these dynamics position Medicon Valley as a premier European destination for biotech investment and scale-up funding.



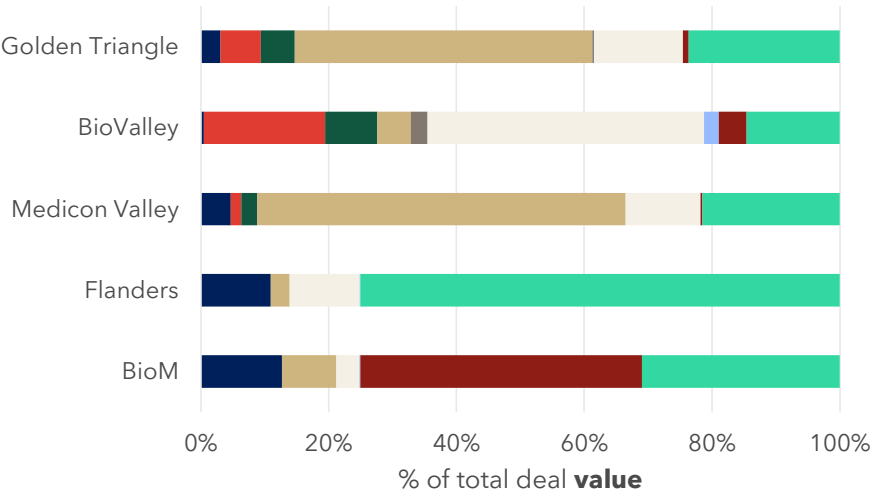
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Medicon Valley has most active fundraisers in EU

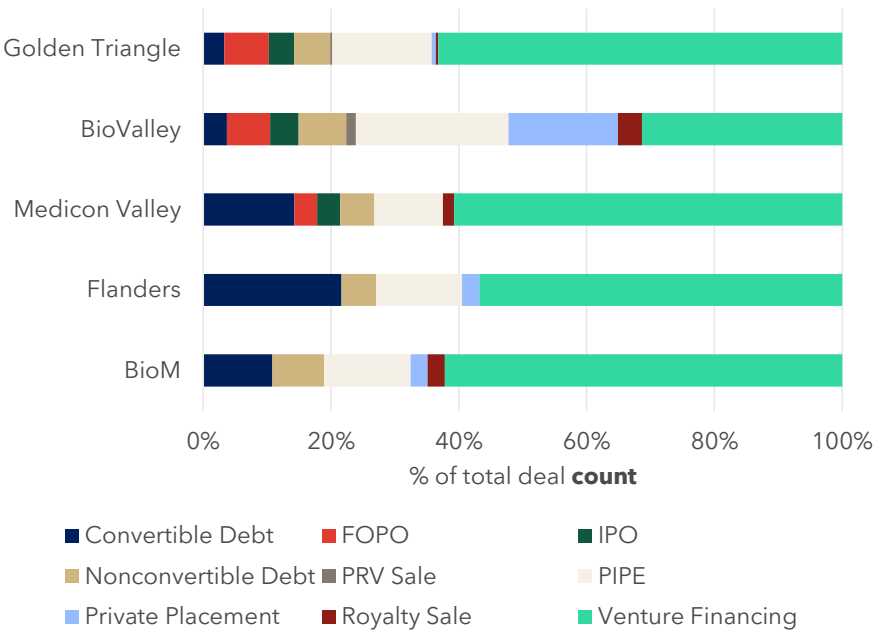
Medicon Valley shows nonconvertible debt leadership

Medicon Valley stands out as the only European cluster where debt financing dominates, with ~55% of capital raised through nonconvertible debt. This reflects a concentration of revenue-generating, commercially mature companies with predictable cash flows, strong creditworthiness, and access to sophisticated capital markets. Similar to most other clusters, venture financing is the most frequently used method of acquiring funds.

Financing breakdown by deal values since 2019



Financing breakdown by deal volume since 2019

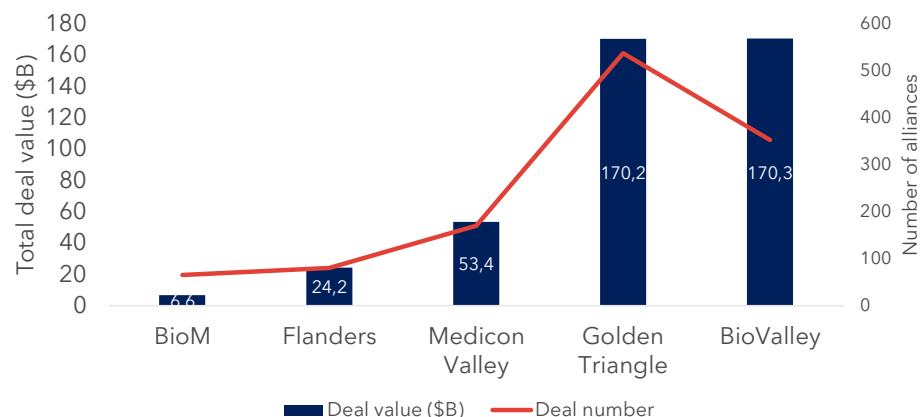


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Medicon Valley ranks third in both alliance and acquisition activity

Medicon Valley ranks third in both deal value and volume in alliance activity

Alliance* activity from 2019 to 2025 YTD

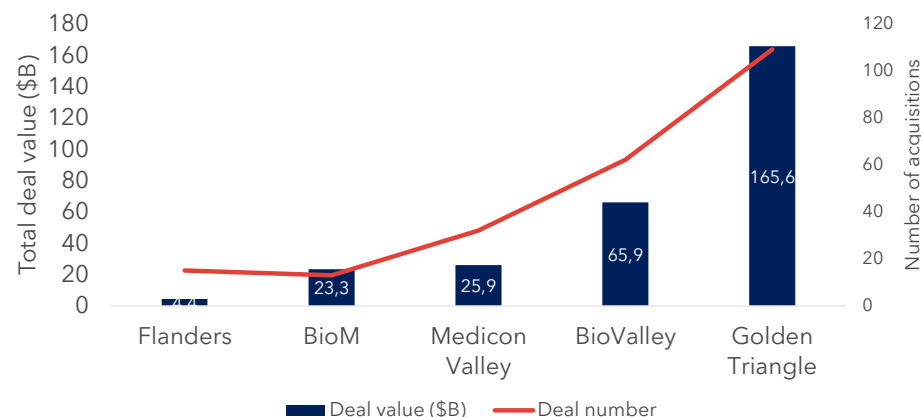


Fewer alliances have been formed, and with a lower total deal value, by companies located in Medicon Valley than in BioValley or the Golden Triangle, but Medicon Valley outperforms both Flanders and BioM. Encouragingly, **alliance activity in Medicon Valley was off to a strong start in the first-half of 2025** exemplified by Zealand Pharma and Roche agreeing to co-develop and co-commercialize petrelintide for \$5.3B.



In acquisition activity, Medicon Valley holds third position in both deal volume and deal value

Acquisition activity from 2019 to 2025 YTD



Medicon Valley ranks third in M&A activity (\$25.9B across 32 deals), marked by selective but high-value transactions. This M&A dynamic positions Medicon Valley as a premium exit destination—offering investors proven pathways to high-value exits, acquirers access to commercially validated assets, and growth companies a sophisticated market where premium deals outweigh early exits.

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. For alliance activity, deal values were disclosed in 61 of 65 deals for BioM, 56 of 80 deals for Flanders, 174 of 352 deals for BioValley, 81 of 170 deals for Medicon Valley, and 191 of 537 deals for the Golden Triangle. For acquisition activity, deal values were disclosed in 7 of 13 deals for BioM, 10 of 15 deals for Flanders, 40 of 62 deals for BioValley, 26 of 32 deals for Medicon Valley, and 70 of 109 deals for the Golden Triangle. *An alliance is defined as an agreement between two or more companies regarding either a pharmaceutical product, technology, service, etc.

History of collaboration across European life science clusters



Strategic alliance

Muna Therapeutics (developing innovative therapeutics for neurodegenerative diseases) announced a research alliance in 2024 with **GSK** to identify and validate novel drug targets for the treatment of Alzheimer's disease. Muna will lead target discovery/validation using its MiND-MAP platform while GSK will lead drug development, manufacturing, and commercialization.

Value: The partnership combines Muna's human-centered discovery platform with GSK's development engine to advance novel Alzheimer's therapies.



Co-development

Zealand Pharma entered into a global collaboration and license agreement in 2025 with **Roche** to co-develop and co-commercialize petrelintide, Zealand's amylin analog, and combination products with petrelintide, including a fixed-dose combination product of petrelintide and CT-388, Roche's lead incretin asset and GLP-1/GIP receptor dual agonist.

Value: The combination will further strengthen and expand Roche's pipeline in the field of obesity while giving Zealand substantial upfront and milestone payments and solidifying its position as a key player in the future management of obesity.



In-licensing

Scancell entered a licensing agreement in 2022, granting **Genmab** the exclusive worldwide rights to develop and commercialize a Scancell investigational anti-glycan monoclonal antibody for use in novel therapeutic products.

Value: It expands Genmab's antibody pipeline with novel anti-glycan biology, while Scancell monetizes its GlyMab platform and retains capacity for in-house development or future deals.



Strategic opportunities for increased collaboration



Shared digital health and data platforms

Opportunity: Link real-world data networks (e.g., patient registries, genomics, clinical trial data) across hubs. Medicon Valley's strong clinical pipeline could be complemented by the Golden Triangle's AI/omics leadership.

Value: Creates a pan-European data ecosystem rivaling US-scale players, accelerating biomarker discovery, personalized medicine, and evidence-based approvals.



Public-private infrastructure sharing

Opportunity: Pool resources across hubs for specialized infrastructure (e.g., European Spallation Source, synchrotron radiation facility (MAX IV Laboratory), cryo-EM centers, GMP biologics facilities, advanced genomics platforms).

Value: Lowers duplication, increases access to cutting-edge tools, and makes Europe more capital-efficient.



Pan-European talent mobility & training

Opportunity: Develop shared training programs and mobility schemes across clusters (e.g., clinical operations in Medicon Valley, discovery science in BioM, late-stage regulatory expertise in the Golden Triangle).

Value: Builds a more fluid, EU-wide biotech workforce, reduces talent bottlenecks, and enhances cross-border knowledge transfer.



Coordinated regulatory engagement

Opportunity: Form cross-cluster consortia to engage regulators (EMA and national agencies) on innovative trial designs, biologics frameworks, and cell/gene therapy approvals.

Value: Strengthens Europe's influence on global regulatory standards and streamlines approval pathways across markets.



Joint manufacturing and supply chain hubs

Opportunity: Build distributed EU manufacturing networks – Medicon Valley focusing on biologics, BioM on small molecules, for example – creating resilience against supply chain disruptions.

Value: Reduces reliance on US/Asia manufacturing, ensures EU independence in critical therapeutics, and attracts global partners seeking secure supply chains.



Cross-hub thematic consortia

Opportunity: Create Europe-wide thematic collaborations (e.g., oncology, rare diseases, metabolic disorders) where each hub contributes its relative strengths.

Value: Positions Europe as the global leader in targeted therapeutic areas, concentrating resources and accelerating breakthrough innovation.

Spotlight on the key European life science clusters

A strategic analysis of selected European life sciences innovation hubs was conducted, focusing on drug development, clinical trials, and deal activity using data from 3 proprietary Citeline platforms.

Hub profiles

High-level hub profiles of 5 key EU + UK innovation hubs leveraging internal and secondary data sources:

- Medicon Valley
- Golden Triangle
- BioValley
- Flanders
- BioM

Analysis of drug, trial and deal landscape

Each hub was defined by its constituent cities and towns, using **company headquarters** as a guide for search criteria. Each hub's drug pipeline, trial activities, partnerships, and investment landscape were analyzed.

Spotlight on Medicon Valley

Medicon Valley – spanning from Eastern Denmark to Southern Sweden across the Øresund Strait – is one of Europe’s most integrated and vibrant life science clusters. Anchored by globally recognized universities, hospitals, and research institutions, the region combines academic excellence with a strong industrial base in pharmaceuticals, medtech, and biomanufacturing. Its cross-border ecosystem brings together Danish and Swedish expertise in especially within **cancer, metabolic and central nerve system (CNS)** research, supported by a highly skilled international workforce. Recognized for a close collaboration between academia, industry, and healthcare, Medicon Valley accelerates innovation and transforms cutting-edge science into real-world health solutions.

>85,000

regional employees in private life science companies in Medicon Valley

~4.4 M

population in Medicon Valley

+1,500

life science companies identified regionally

12

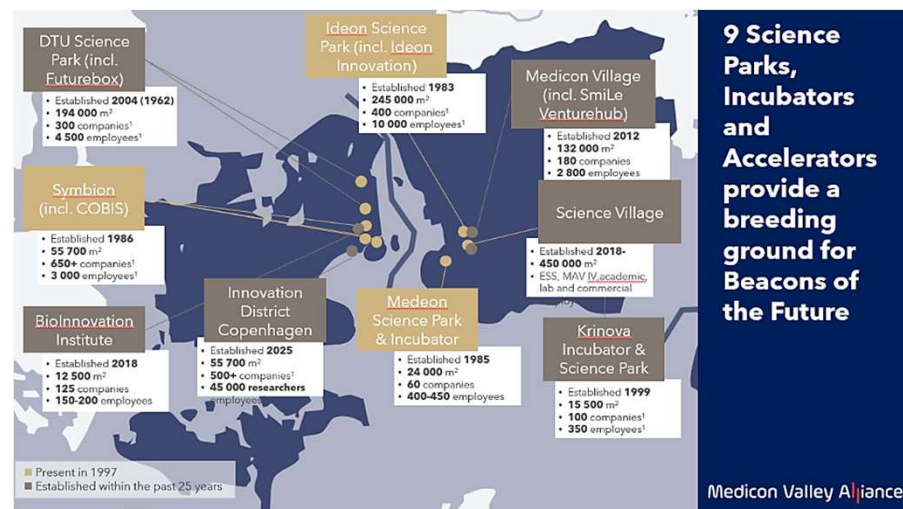
universities, 5 of which supply life science related educations

32

hospitals, of which 11 are academic hospitals

2nd

highest number of in-house manufacturing facilities (32) and the highest number of CDMO facilities (22) in Europe in 2024



Science parks and incubators in Medicon Valley

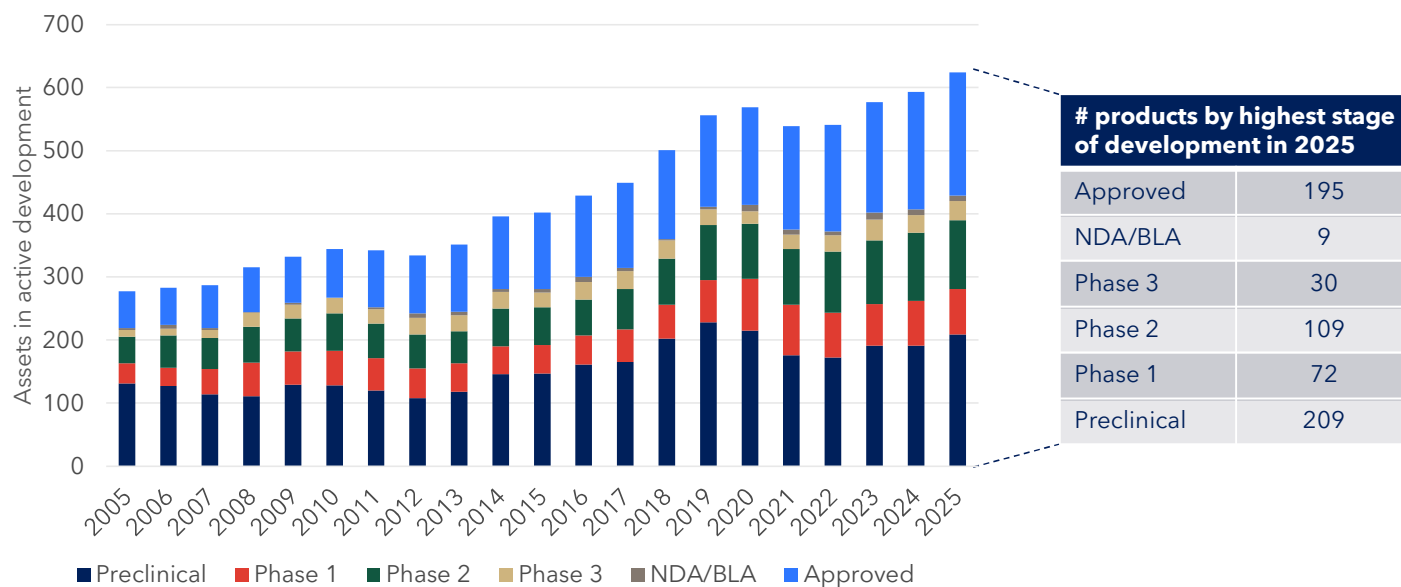
Medicon Valley is home to a vibrant life science ecosystem, comprising approximately more than 1,500 life science companies. The region also hosts **9 science parks, incubators** and accelerators with a strong focus on life sciences. Since Medicon Valley Alliance was founded in 1997, 6 new life science parks, incubators, and accelerators have been established across the region.

Medicon Valley Alliance

16 / MVA

Drug development trend in Medicon Valley

Medicon Valley biopharma R&D pipeline



Steady pipeline growth:

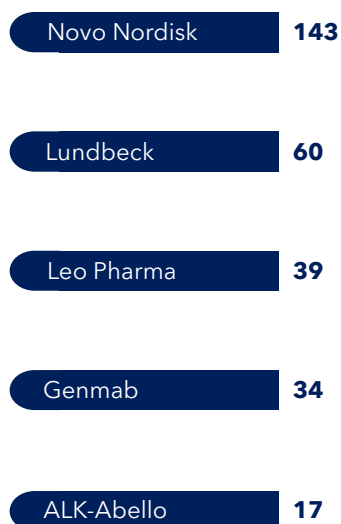
There are more drugs in early-stage (Preclinical and Phase 1) development now than in the last 4 years (281 Preclinical and Phase 1 drugs in 2025 vs ~250). Moreover, the number of drugs in Phase 2 and 3 development is the highest it has ever been (81 in Phase 2 and 22 in Phase 3).



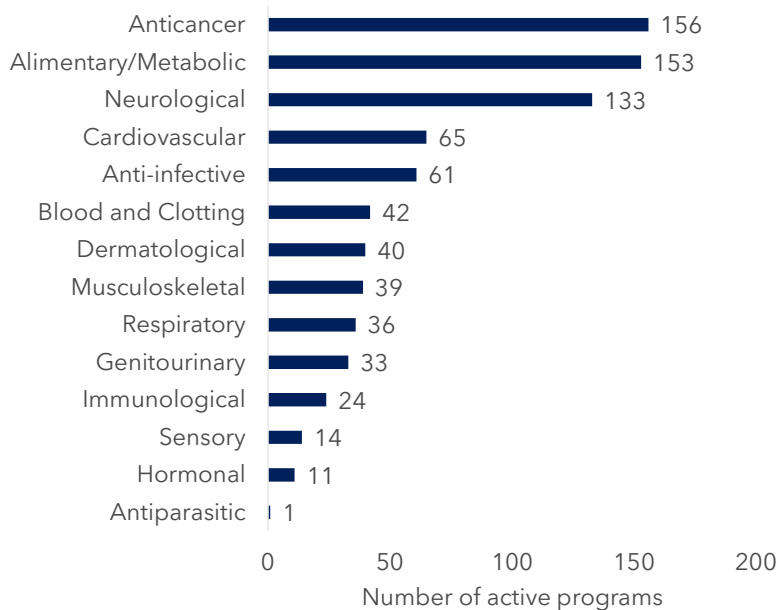
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Drug development in Medicon Valley

Top 5 companies based on portfolio size in the Medicon Valley



Breakdown of drug programs in active development by disease area



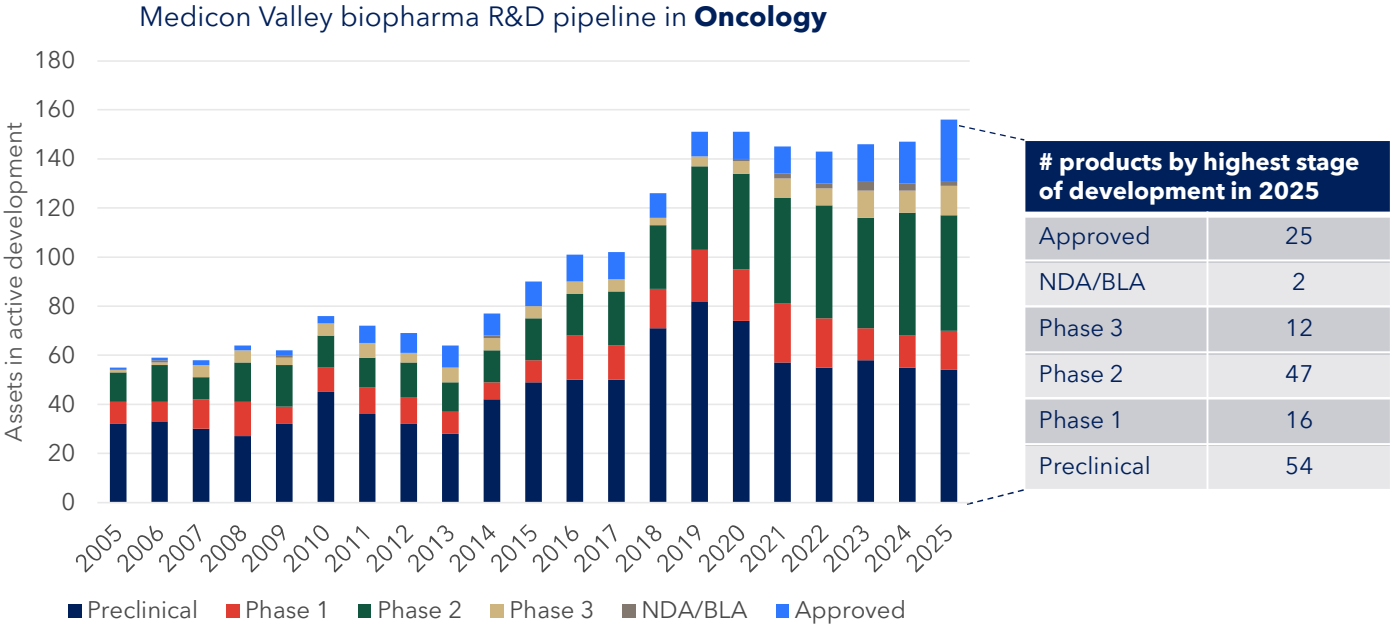
Novo Nordisk and Lundbeck anchor Medicon Valley innovation:

Novo Nordisk stands out as the clear innovation leader in the Medicon Valley, boasting a portfolio of 143 assets. Lundbeck follows with 60 active programs, demonstrating strong depth in its focus areas. Leo Pharma ranks third with a dermatology- focused portfolio.

Alimentary/Metabolic focus:

Beyond oncology, Alimentary/Metabolic research is well-known as a key focus area in the Medicon Valley, leveraging the region's scientific expertise and strong commercial acumen. Novo Nordisk is leading this momentum within the industry.

Deep dive into pipeline and approved oncology drugs in Medicon Valley



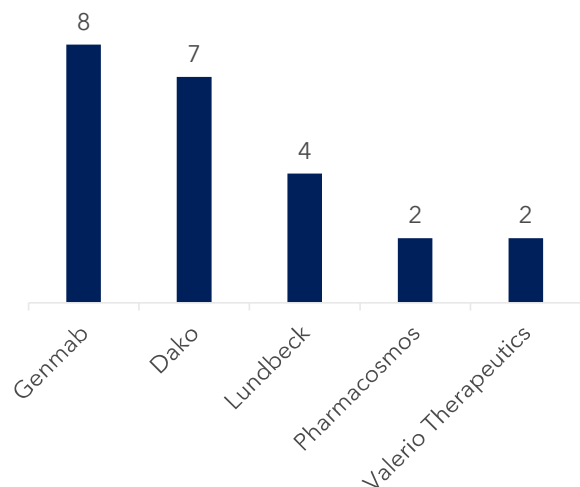
Steady pipeline development with more drugs approved:

Overall pipeline development remains stable (~130 drugs in 2025) with a higher number of approvals compared to previous years. Moreover, the number of drugs in **Phase 3 development is the highest** it has ever been (12 in Phase 3).

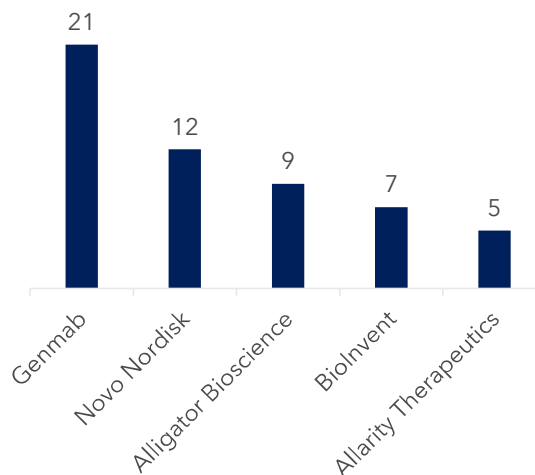
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Closer look in pipeline and approved oncology drugs in Medicon Valley

Top 5 companies with the most approved drugs in oncology



Top 5 companies with the most pipeline drugs in oncology



Genmab an established oncology player:



There are **25 drugs** for oncology indications that have been launched by companies headquartered in the Medicon Valley. Genmab leads with 8 approved assets - predominantly antibody-based biologics.

Novo Nordisk expanding beyond metabolic disease:

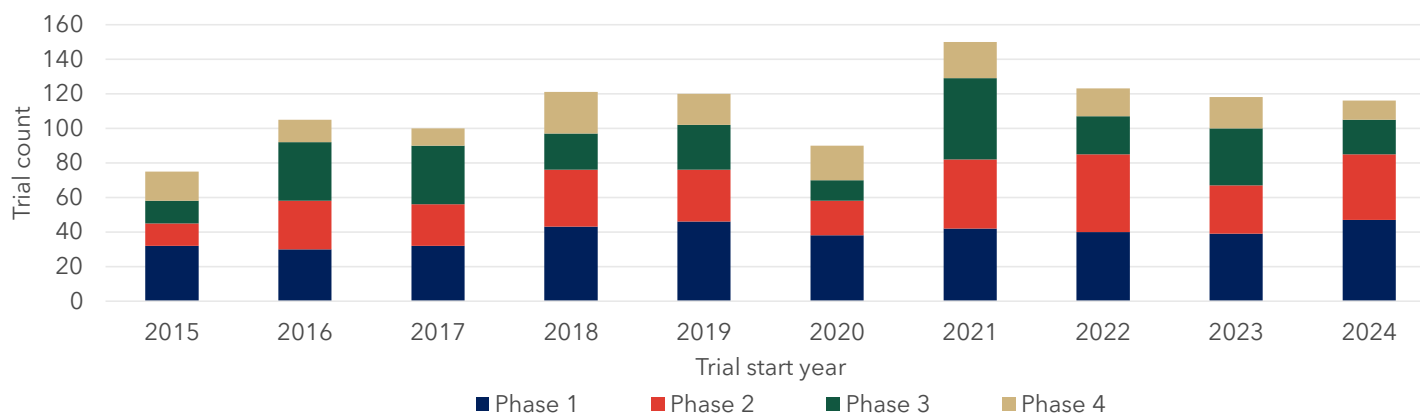


129 drugs are being investigated within oncology indications by companies headquartered in the Medicon Valley; Genmab leads with **21 assets** mostly targeting solid tumors, NSCLC, and NHL. Novo is in second place with **12 assets** showing the company's diversification

Trials sponsored by organizations headquartered in Medicon Valley

Clinical trial activity shows recovery and maturation following 2020 disruption

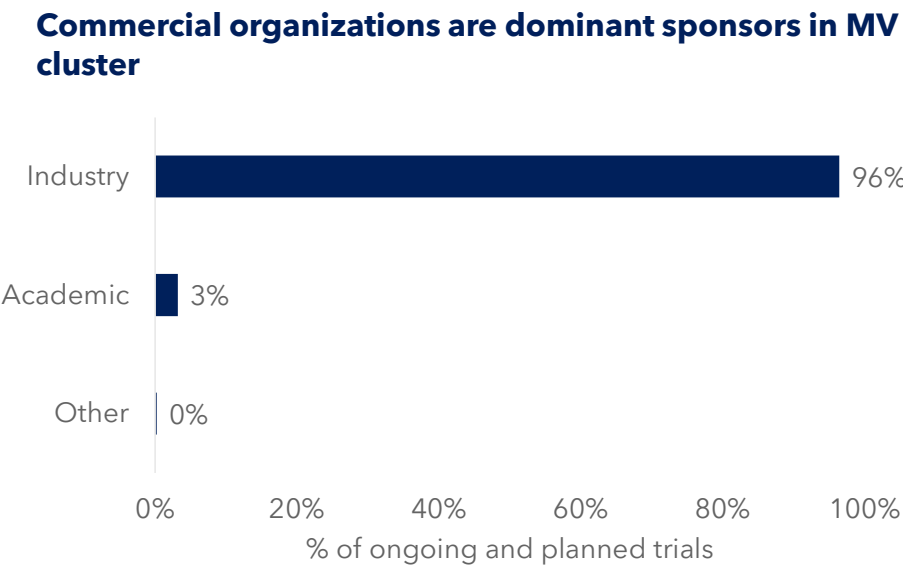
The clinical trial landscape from 2015-2024 reveals a story of steady growth, pandemic disruption (2020), and robust recovery. While there was a decrease in Phase 3 trials initiated in 2024, there has been a notable increase in Phase 2 trials over time which is promising.



Currently there are **365** ongoing and planned trials sponsored by organizations headquartered in the Medicon Valley. **72** are in Phase 1, **153** in Phase 2, and **88** in Phase 3 with **52** trials in Phase 4.

The analysis is based on data from Cyteline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within the MV have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in Medicon Valley



Top 5 MV trial sponsors based on ongoing and planned trial count

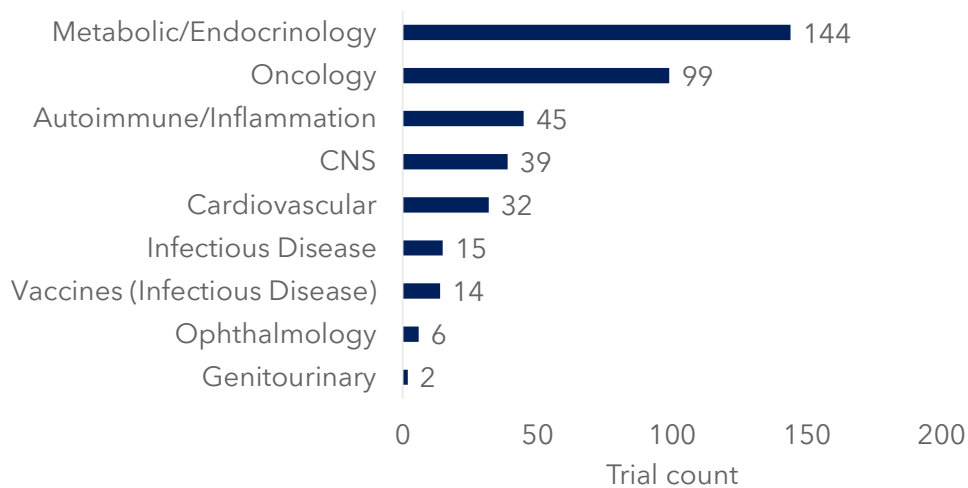


Novo Nordisk stands out as a major contributor within the Medicon Valley, sponsoring **123** clinical trials, followed by Genmab with 32 trials.

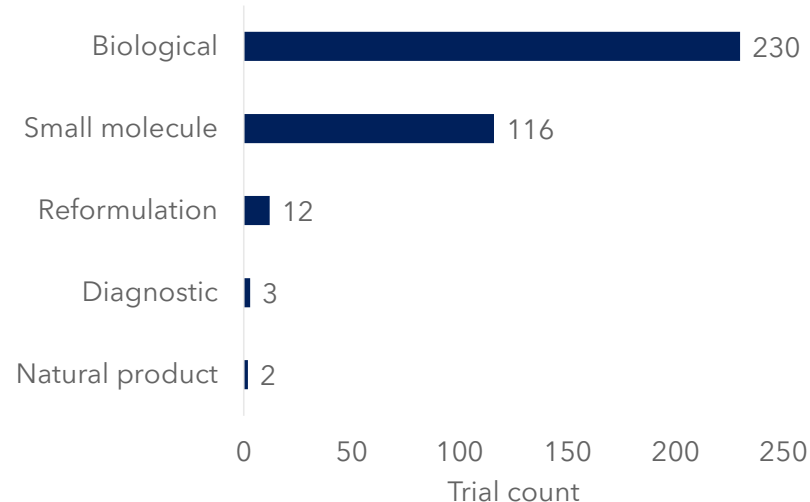
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Trials sponsored by organizations headquartered in Medicon Valley

Most ongoing and planned trials in Metabolic/Endocrinology space



Biologics are the dominant drug type in ongoing and planned trials

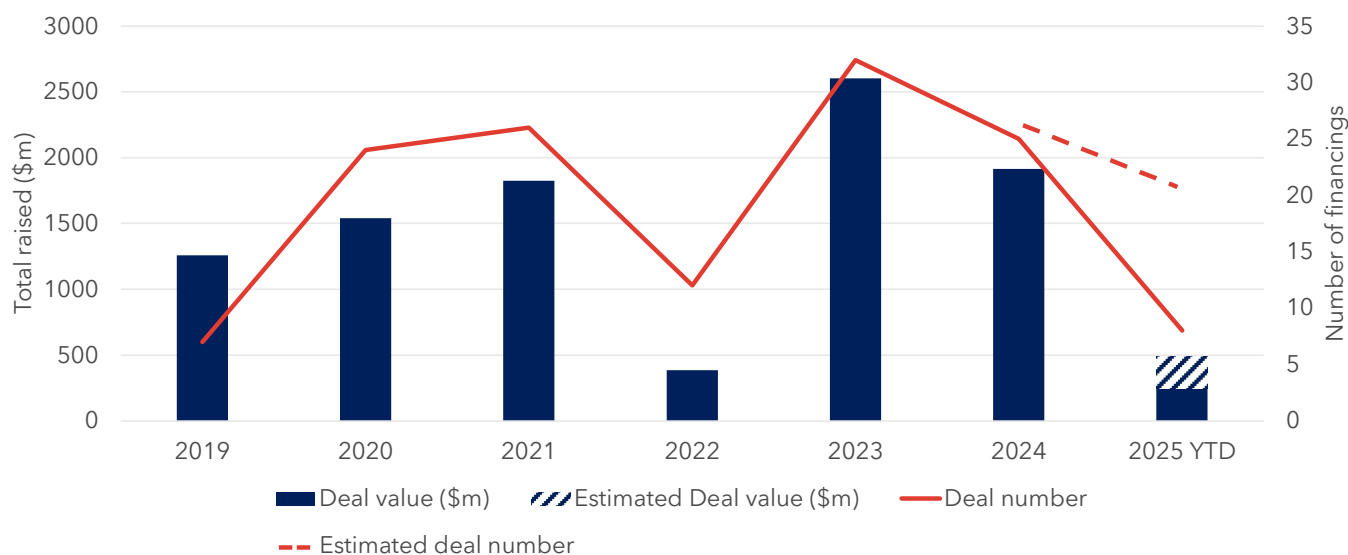


Metabolic/Endocrinology remains the leading therapeutic area, collectively accounting for 144 ongoing and planned clinical trials. **Biologics** continue to be the predominant drug modality, followed by small molecules.

The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within the MV have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Financing statistics for Medicon Valley

Financing activity in the MV cluster



Apart from a blip in 2022, Medicon Valley experienced strong growth in financing activity between 2019 and 2023 in terms of both deal value and volume. Activity was particularly strong in 2023 with 31 deals totaling \$2.6B. Since this peak, activity has slowed somewhat and so far, 2025 reflects wider market difficulties in securing investment.

Largest financing:
\$1.3B PIPE in August 2023



Largest deal of 2025 YTD:
\$160M PRV sale in June



Largest venture financing:
\$154M series B financing in June 2020



Largest IPO:
\$549M IPO financing in July 2019

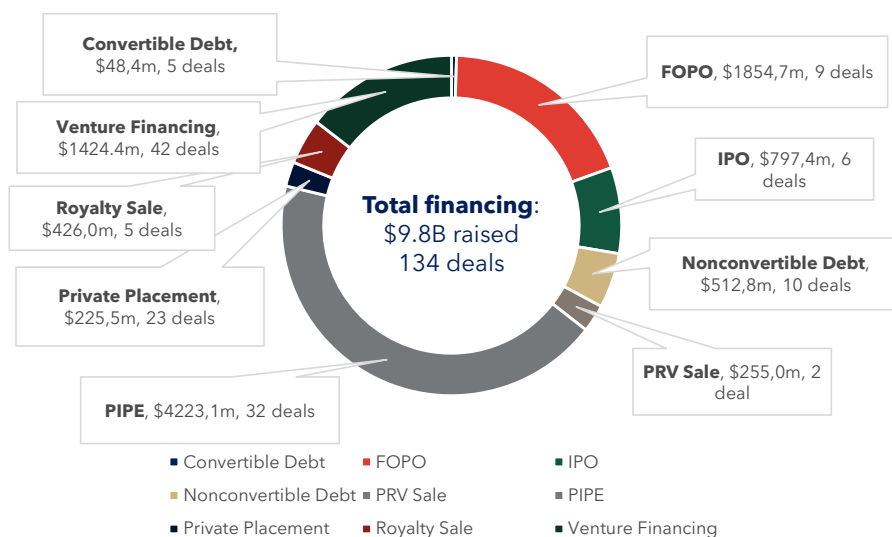


The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within the MV have been included in this analysis. For financing activity, deal values were disclosed in 132 of 134 deals.

Financing statistics for Medicon Valley

Financing breakdown since 2019

PIPE transactions dominate the financing landscape with \$4.22B across 32 deals, representing the largest single financing category by value. They are followed by substantial venture financing activity (\$1.4B across 42 deals) and notable debt financing (\$513M non-convertible and \$48M convertible across 15 deals combined). Public market activity also shows a strong presence, with ~\$1.9B raised through follow-on offerings (9 deals) and ~\$800M through IPOs (6 deals), highlighting solid public market access. Overall, the financing mix reflects a mature ecosystem, with companies successfully tapping into diverse capital sources.



FOPO = follow-on public offering, PIPE = private investment in public equity, IPO = initial public offering, PRV = Priority Review Voucher

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within the MV have been included in this analysis. For financing activity, deal values were disclosed in 132 of 134 deals.

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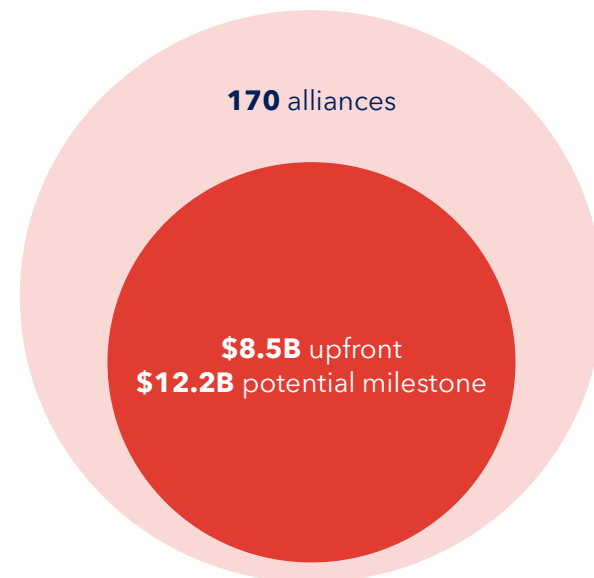
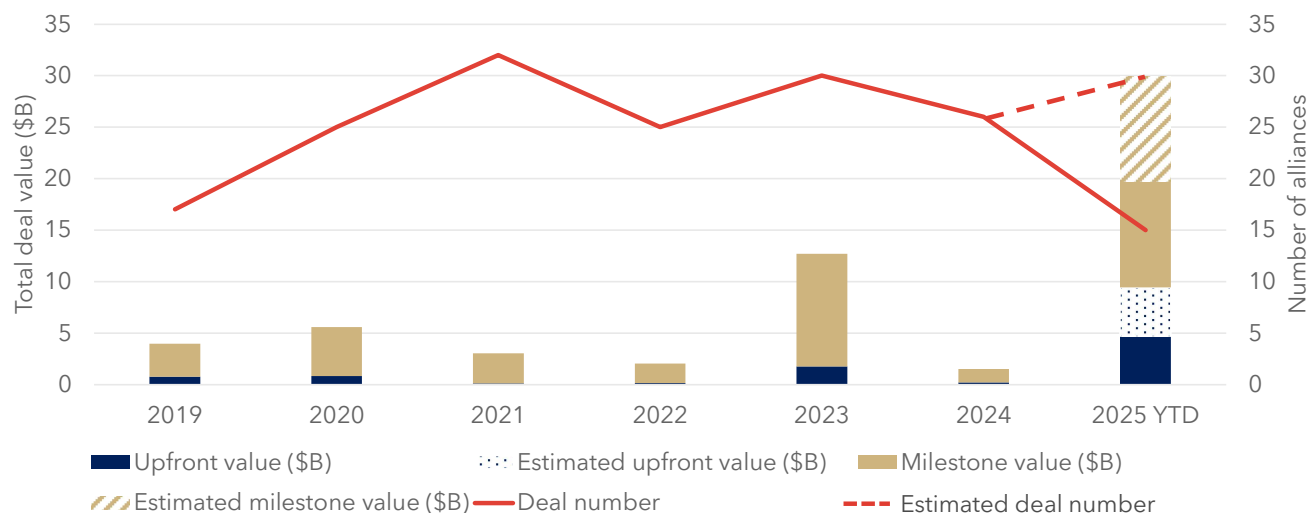


Largest IPO:
\$549M IPO financing in July 2019



Partnering statistics for Medicon Valley

Alliance activity in MV cluster



Alliance activity has been strong in recent years, with deal counts consistently ranging from 25 to 32 partnerships annually since 2021, underscoring strong market attractiveness for strategic collaborations. Deal structures are largely milestone heavy reflecting a risk-adverse market. Although encouragingly 2025 is somewhat bucking this trend as reflected by the \$1.65B upfront payment from Roche to Zealand Pharma in the petrelintide co-development agreement.

Largest partnering deal:

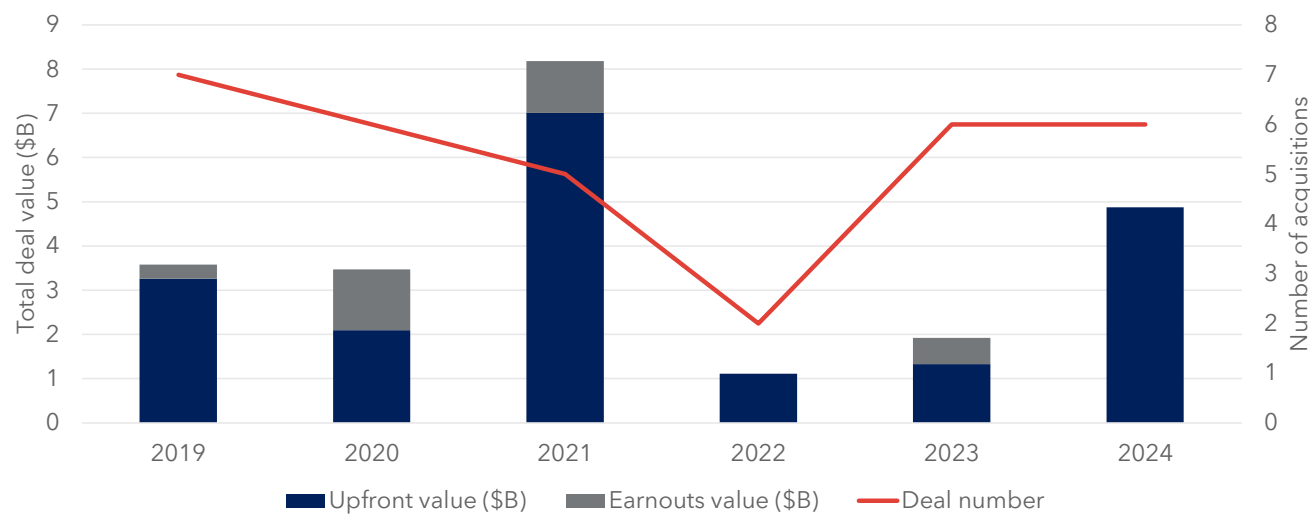
Zealand and Roche agreed to co-develop and co-commercialize petrelintide for **\$5.3B**, agreed 2025



The analysis is based on data from Citeline's Biomedtracker obtained in July 2025. Only companies with their headquarters within the MV have been included in this analysis. For alliance activity, deal values were disclosed in 81 of 170 deals, while deal values were disclosed in 26 of 32 deals for acquisition activity.

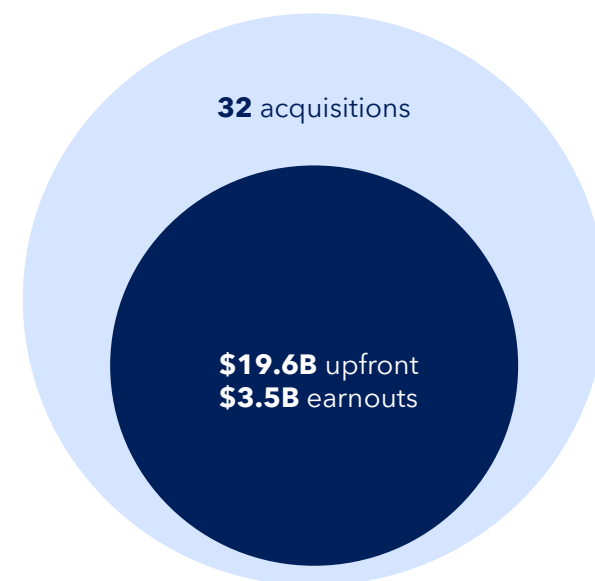
Acquisition statistics for Medicon Valley

Acquisition activity in MV cluster



M&A activity from 2019-2024 has been relatively stable in terms of volume, apart from the sharp decline to just 2 deals (\$1.1B) in 2022.

Total deal value peaked in 2021 before declining in 2022-2023. In 2024, the market showed a strong recovery with \$4.9B across 6 transactions, marking a promising rebound from the prior lows.



Largest acquisition deal:

Novo Nordisk acquired Dicerna for **\$3B**, agreed in 2021



Spotlight on Golden Triangle (GT)

The Golden Triangle – linking Oxford, Cambridge, and London – is one of the world's foremost life sciences and innovation clusters. Anchored by globally recognized universities and research institutions, the region combines academic excellence with a high concentration of biopharma companies, investors, and specialized talent. Its well-established ecosystem attracts significant capital inflows and fosters deep collaboration between academia and industry, accelerating both scientific breakthroughs and their commercial translation.

~GBP 74B

Contributed from the UK life sciences sector, mainly driven by the Golden Triangle region, as of March 2020

21

life sciences parks established in the region. Key parks include Stevenage Bioscience Catalyst (Cambridge), Milton Park (Oxford), Kings Cross and White City (London)

~25%

increase in life sciences employment in London in the decade running up to 2018, the largest of any region in the UK

~GBP 3.7B

raised in 2024 in the UK biotech sector, a 106% increase from 2023

4

of the world's top ten universities for life sciences – Oxford University, Cambridge University, Imperial College London, and University College London

>GBP 18B

global turnover generated by Cambridge alone



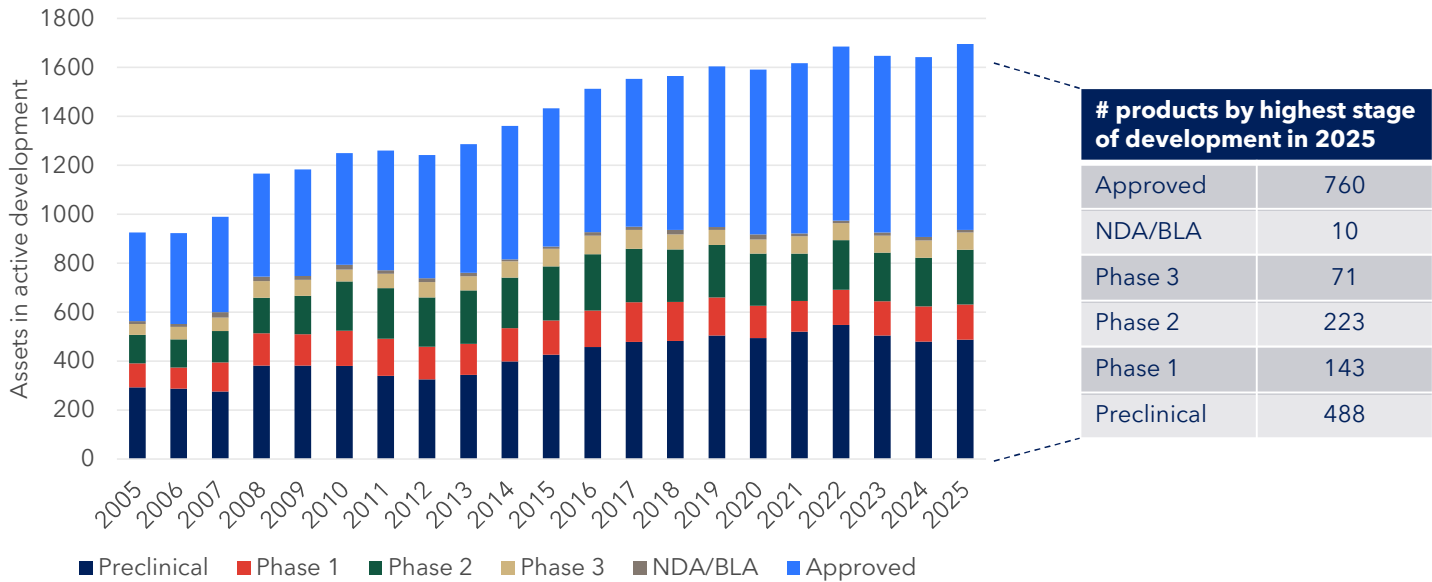
The Golden Triangle and its strengths

The Golden Triangle is a uniquely dense life sciences ecosystem, bringing together world-class research centers, healthcare providers, and medical charities within a compact geography. It is **home to four of the world's top ten universities for healthcare**, creating a continuous flow of cutting-edge research, skilled talent, and clinical expertise.

The cluster integrates **five of the UK's seven Academic Health Science Centers** and hosts leading research organizations such as the Wellcome Trust, Medical Research Council, Cancer Research UK, and Cell Therapy Catapult. This concentration of academic excellence, clinical infrastructure, and research capacity enables seamless collaboration across disciplines and institutions, fostering an environment where discovery rapidly translates into innovation for patient benefit.

Drug development in Golden Triangle

Golden Triangle biopharma R&D pipeline



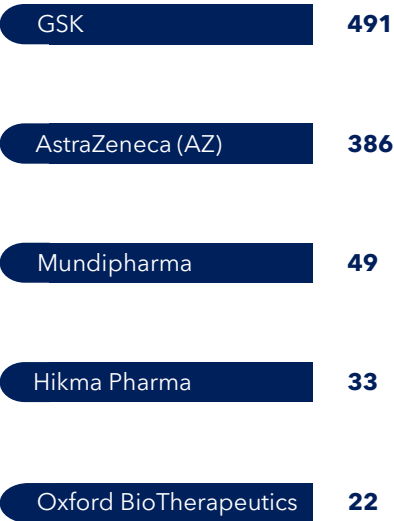
Investment in early-phase R&D and commercialization:

Strong investment in early-stage research is exemplified by the increase in preclinical assets from 426 in 2015 to 548 in 2022. Much of this research has spilled out of universities and academic institutions. Similarly, there has been a considerable increase in the number of approved products, rising from 564 in 2015 to 760 in 2025 reflecting investment in commercialization.

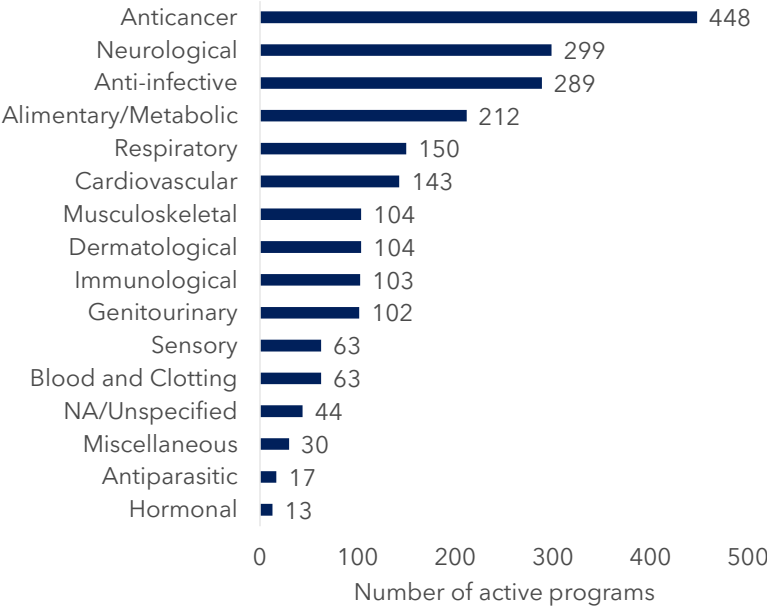
The analysis is based on data from Citeline's Pharamaprojects obtained in July 2025 and from annual snapshots taken in May each year. Pharamaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within the Golden Triangle have been included in this analysis.

Drug development in Golden Triangle

Top 5 companies based on portfolio size in the Golden Triangle cluster



Breakdown of drug programs in active development by disease area



GSK and AZ lead the Golden Triangle innovation:

GSK is the clear leader in the cluster, with a robust pipeline of 491 assets. AZ follows closely with 386 active programs, underscoring its strong R&D footprint. Mundipharma ranks third, though its portfolio of 49 candidates is considerably smaller. Collectively, these players highlight the Golden Triangle cluster's strength as a hub of biopharma innovation.

The Golden Triangle is strong in oncology, neurology, and infectious diseases:

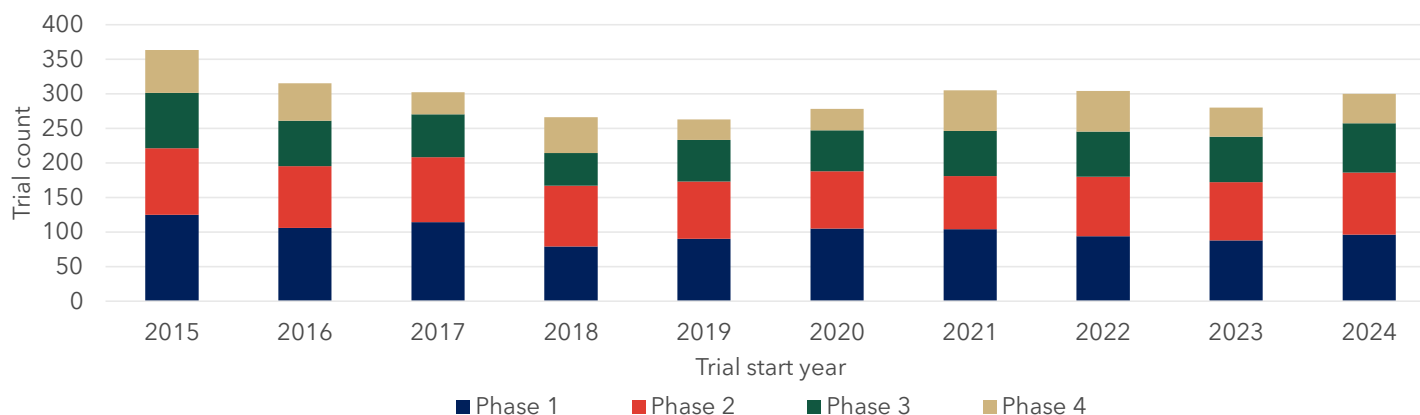
Oncology is the dominant focus of the Golden Triangle life sciences ecosystem, with 448 programs currently in development. Neurology and infectious diseases are also key areas of focus. GSK and AZ are at the forefront, spearheading the cluster's momentum in these 3 areas.

The analysis is based on data from Citeline's Phmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Phmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within the Golden Triangle have been included in this analysis.

Trials sponsored by organizations headquartered in Golden Triangle

Overall increase in trial count since low in 2018/9

There was a notable decline in trials initiations from the peak in 2015 (~370 trials) to the low in 2018-2019 (~260 trials). However, this has since been followed by gradual recovery to ~300 trials by 2024. In terms of ongoing trials, Phase 2 trials consistently represent the largest segment (35-40%) across all years.

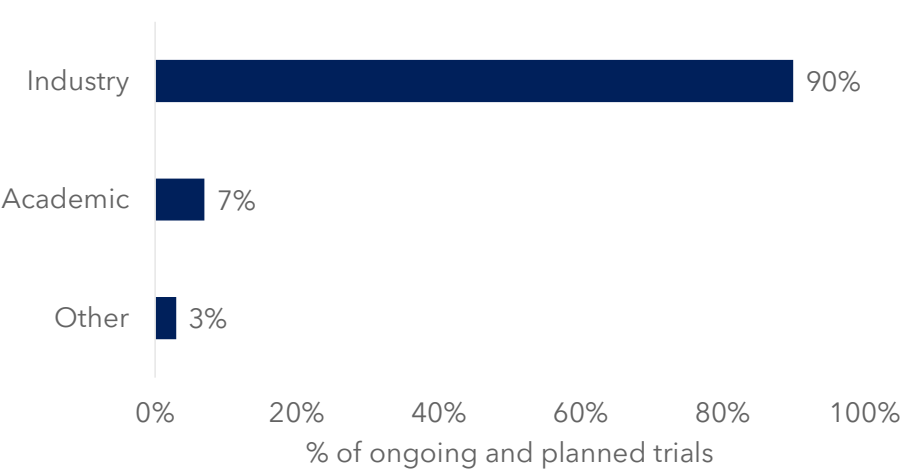


Currently there are **938** ongoing and planned trials sponsored by organizations headquartered in the Golden Triangle cluster. **224** are in Phase 1, **325** in Phase 2, and **234** in Phase 3 with **155** trials in Phase 4.

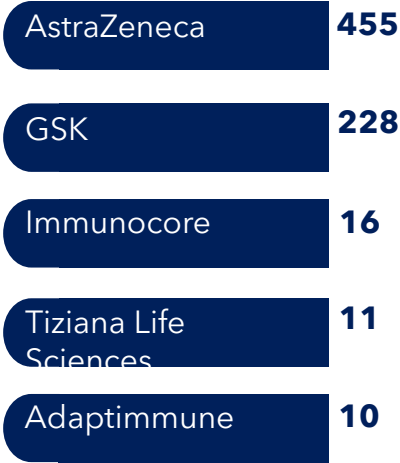
The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within the Golden Triangle have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in Golden Triangle

Commercial organizations are dominant sponsors in the Golden Triangle



Top 5 trial sponsors in GT based on ongoing and planned trial count

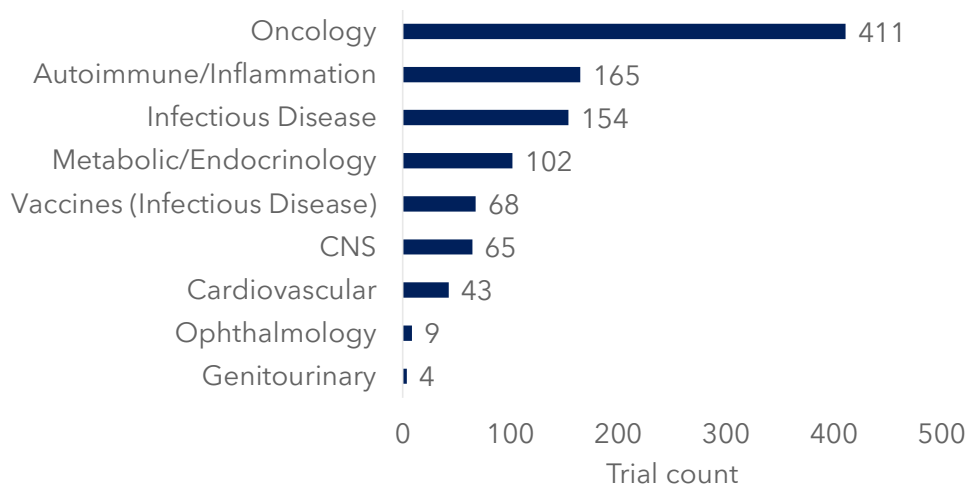


AstraZeneca stands out as a major contributor within the Golden Triangle, sponsoring **455** clinical trials, followed by GSK with 228 trials.

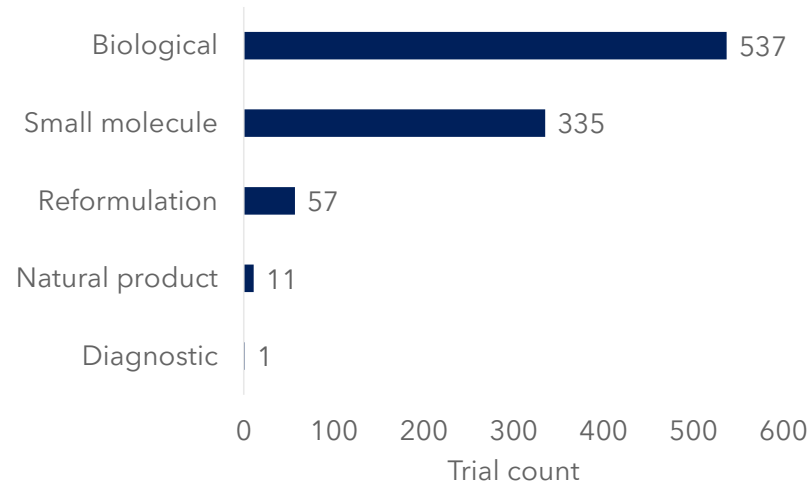
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Trials sponsored by organizations headquartered in Golden Triangle

Most ongoing and planned trials in Oncology



Biologics are the dominant drug type in ongoing and planned trials

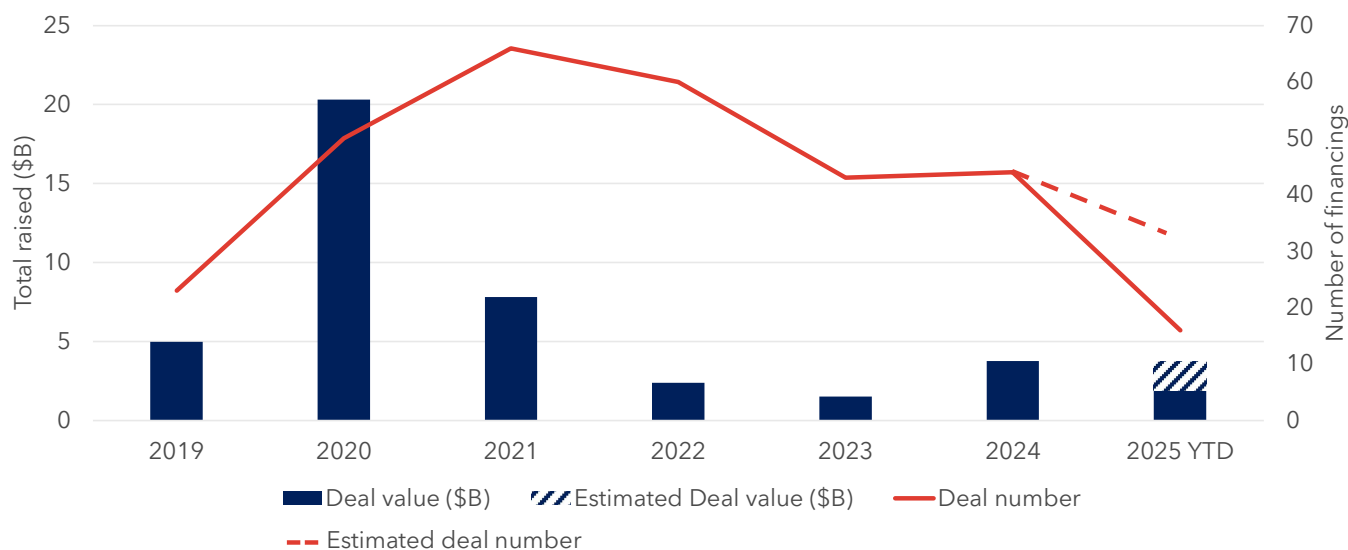


Oncology remains the leading therapeutic area, collectively accounting for 411 ongoing and planned clinical trials. **Biologics** are the dominant drug modality, followed by small molecules.

The analysis is based on data from Citeline's Trialtrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within the Golden Triangle have been included in this analysis. Trialtrove captures data as it becomes available in the public domain. As such, the number of trials in Trialtrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Financing statistics for Golden Triangle

Financing activity in the Golden Triangle cluster



2020 was a standout year in terms of deal value, driven by AstraZeneca's \$17.5B non-convertible debt agreement. The number of financing deals has steadily declined since peaking at 66 deals in 2021, during the height of the pandemic. 2024 and 2025 YTD figures indicate that companies in the region are struggling to raise capital, reflecting broader industry trends.

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within the Golden Triangle have been included in this analysis. For financing activity, deal values were disclosed in 290 of 302 deals.

Largest financing:
\$17.5B nonconvertible
 debt in December 2020

AstraZeneca

Largest deal of 2025 YTD:
\$600M financing in March 2025

**Isomorphic
 Laboratories**

Largest venture financing:
\$600M series D financing in
 June 2021

**CMR
 SURGICAL**

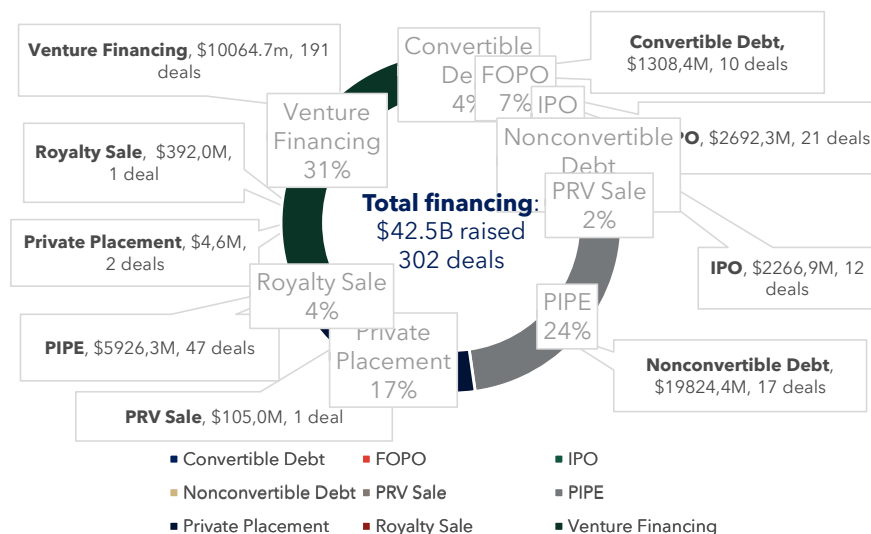
Largest IPO:
\$582M IPO financing in
 September 2021

**Oxford
 Nanopore
 Technologies**

Financing statistics for Golden Triangle

Financing breakdown since 2019

The financing mix reveals a market totaling approximately \$42.5B across 302 deals, heavily skewed toward debt instruments. **Non-convertible debt** was the dominant financing vehicle with \$19.8B raised across 17 deals while **venture financing** accounted for the largest number of deals, 191 with ~\$10B in total deal size.



FOPO = follow-on public offering, PIPE = private investment in public equity, IPO = initial public offering, PRV = Priority Review Voucher

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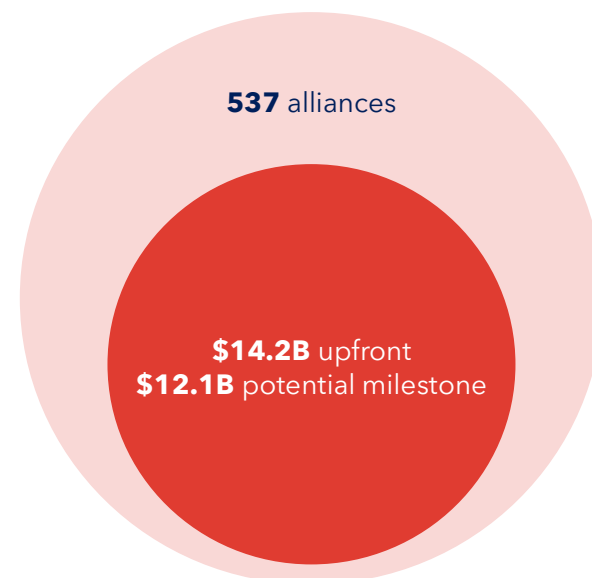
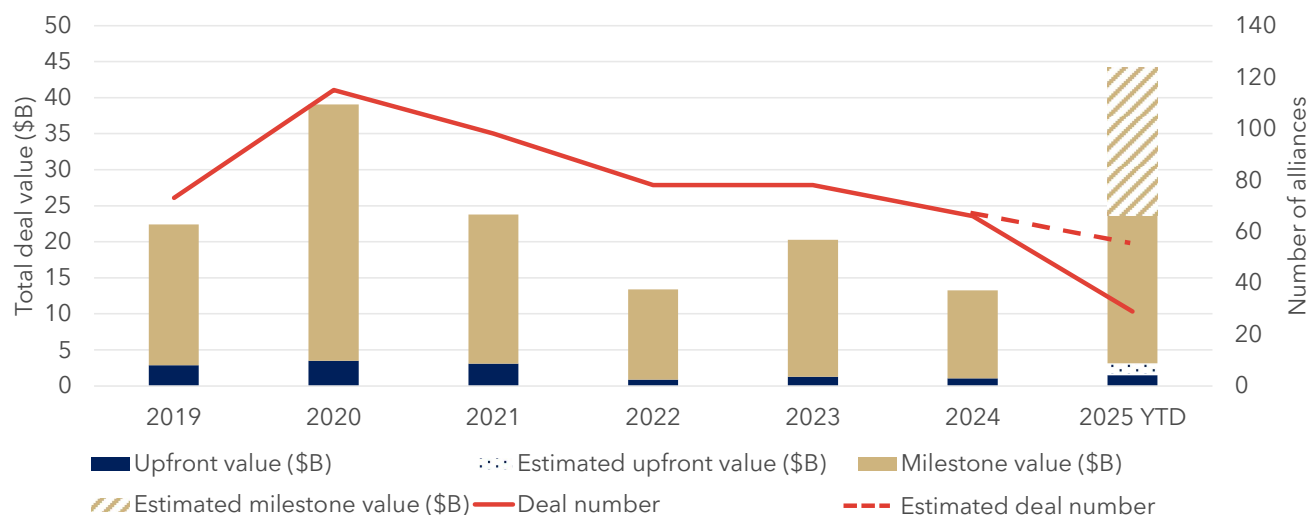
**CMR
SURGICAL**

Largest IPO:
\$582M IPO financing in
 September 2021

**Oxford
Nanopore
Technologies**

Partnering statistics for Golden Triangle

Alliance activity in the Golden Triangle



Partnerships agreements peaked in 2020 with 115 deals accounting for almost \$40B. Following this 2020-2021 pandemic surge, alliance activity normalized to around 65-80 deals annually with total values around \$13-20B. Current 2025 YTD data shows number of deals tracking below recent years. However, there has been some big deals, including AstraZeneca's \$5.3B deal with CSPC Pharma for its AI-driven drug discovery platform.

Interestingly, in-line with a risk-adverse global market, upfront values have increasingly accounted for a smaller percentage of overall deal values.

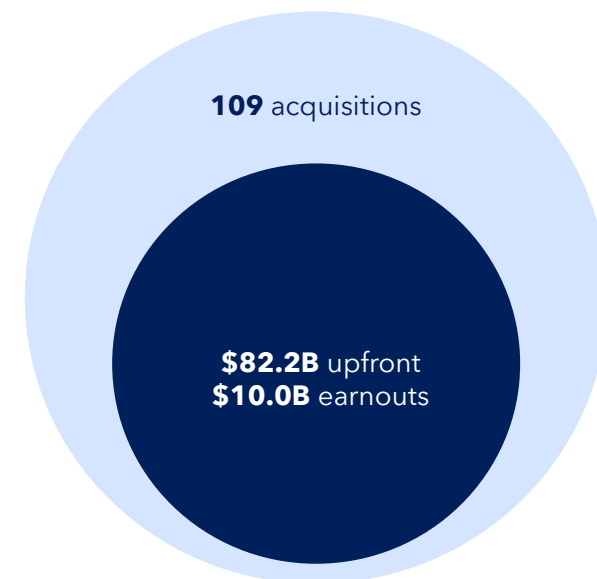
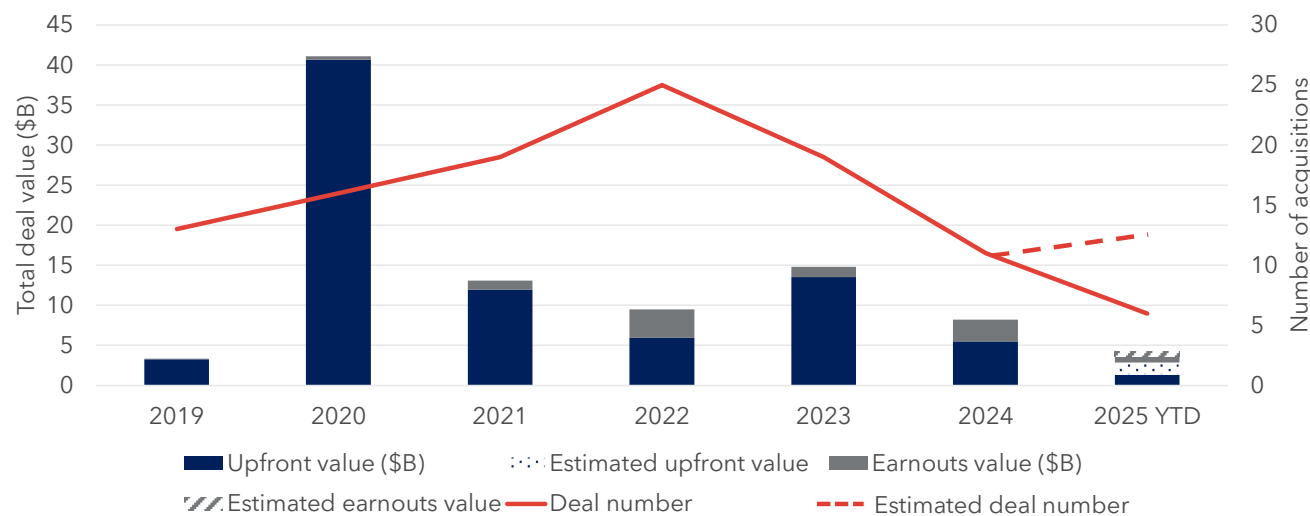
Largest partnering deal:

Merck penned KRAS inhibitor development deal with Astex and Taiho for **\$2.6B**, agreed in 2020



Acquisition statistics for Golden Triangle

Acquisition activity in the Golden Triangle



M&A activity has been volatile in terms of number of deals. 2020 was a standout year with an impressive 25 deals in total, but deal activity has since declined in-line with global markets. There is hope however that 2025 can reverse this trend. Total deal value was especially high in 2020 (~\$40B), but has since largely stabilized. It's noticeable that earnout values account for a greater percentage of total deal values over time.

Largest acquisition deal:
AstraZeneca acquired Alexion Pharma for **\$39B**, agreed in 2020



Spotlight on BioValley

The trinational BioValley life sciences cluster spans the Basel region, extending across France, Germany, and Switzerland. It was one of the first European initiatives for the promotion and development of life sciences. This cross-border ecosystem is supported by a strong network of organizations that foster professional exchange, promote start-up innovation, facilitate technology transfer, and cultivate strategic alliances—reinforcing the region's position as one of Europe's leading biotech hubs.

>\$100B

global turnover and ~\$20B in profit

~900

companies in the life sciences sector, including 40% of the biggest pharmaceuticals in the world

>11

life sciences parks established in the region

40

renowned scientific institutions, such as Friedrich Miescher Institute for Biomedical Research

~100K students

estimated across 12 universities and academic institutes

1,000 – 2,000

new jobs are created every year



BioValley cluster and its strengths

BioValley cluster comprises 3 regional associations, Alsace BioValley, BioValley Deutschland, and BioValley Basel, along with the BioValley Platform in Germany. Together, they form a cross-border network of life sciences expertise that connects companies, research institutes, universities, economic development agencies, and public organizations across the trinational regions.

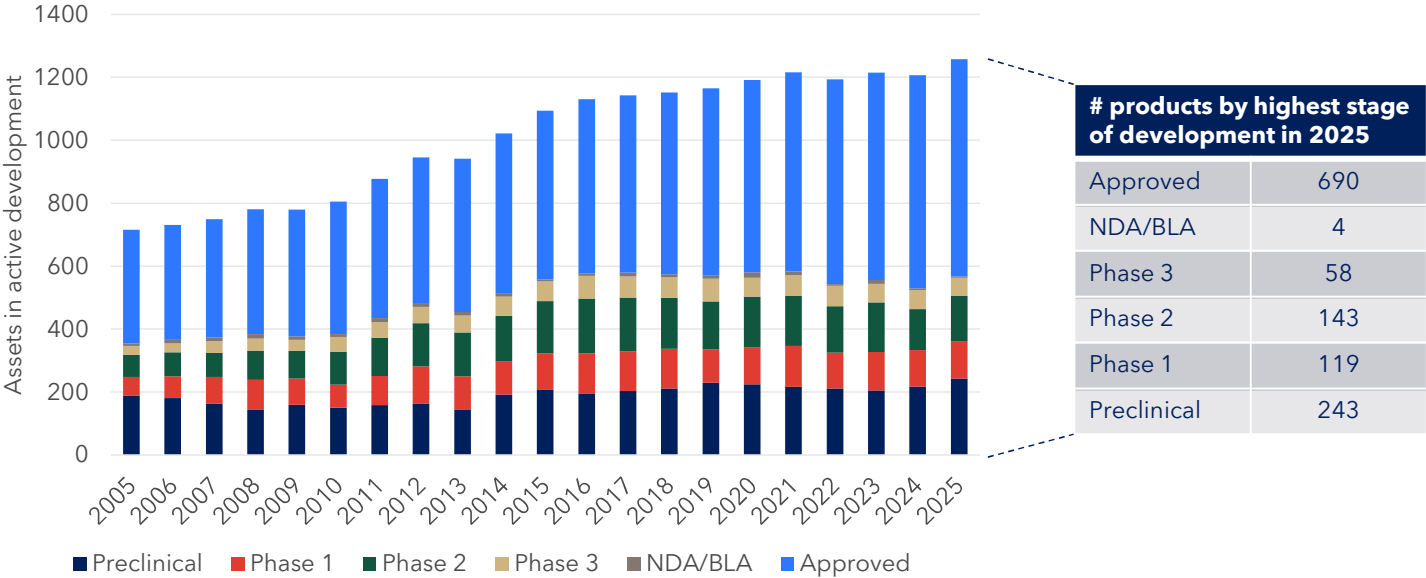
Key USPs include the large talent pool and being **home to key global players** including Novartis and Roche as well as Clariant, Lonza and Syngenta. In addition, its unique location fosters a rich cross-border ecosystem.

BIOVALLEY BASEL™

38 /MVA

Drug development in BioValley

BioValley biopharma R&D pipeline



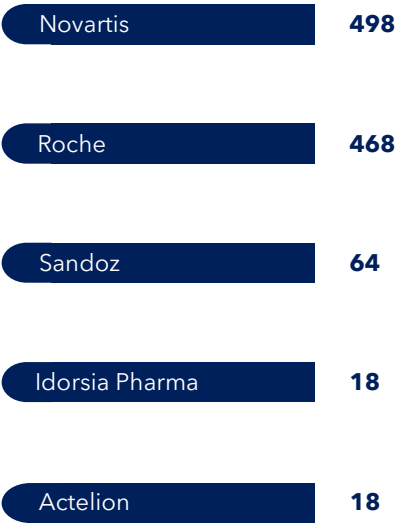
Mature market with increasing number of approved assets:

There is a healthy ecosystem with companies investing in early discovery while maintaining steady late-stage progression, but growth has largely been driven by an increase in the number of approved products, the number of pre-launch products has remained steady. This is reflective of a mature market requiring more selective R&D investments and strategic portfolio optimization.

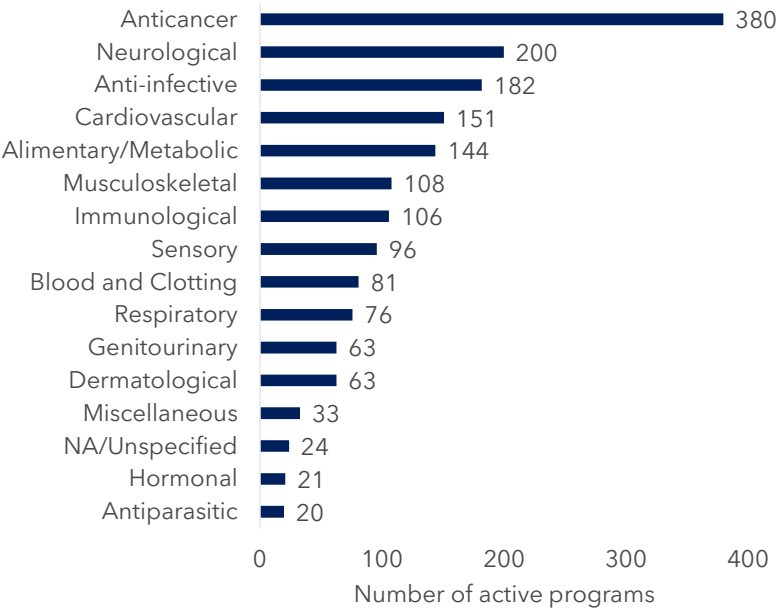
The analysis is based on data from Citeline's Pharmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Pharmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within BioValley have been included in this analysis.

Drug development in BioValley

Top 5 companies based on portfolio size in the BioValley cluster



Breakdown of drug programs in active development by disease area



Novartis and Roche lead in pipeline depth:



Novartis and Roche are behemoths in this cluster. They dominate biopharma innovation, with 498 and 468 pipeline assets respectively. Sandoz ranks third, though with a significantly smaller portfolio of 64 drug candidates.

Oncology fuels innovation at the core of the BioValley ecosystem:



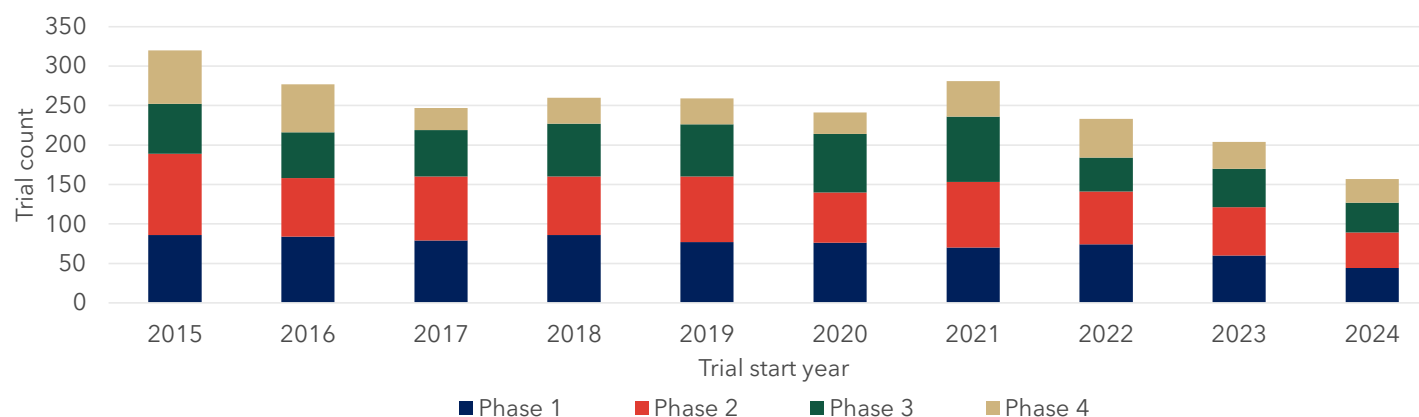
With 380 anticancer assets, BioValley has firmly positioned **oncology** as its primary area of therapeutic innovation driven by strong market potential and deep scientific expertise. Industry leaders including Novartis and Roche are spearheading this momentum.

The analysis is based on data from Citeline's Pharmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Pharmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within BioValley have been included in this analysis.

Trials sponsored by organizations headquartered in BioValley

Clinical trial pipeline contraction: A decade of declining activity

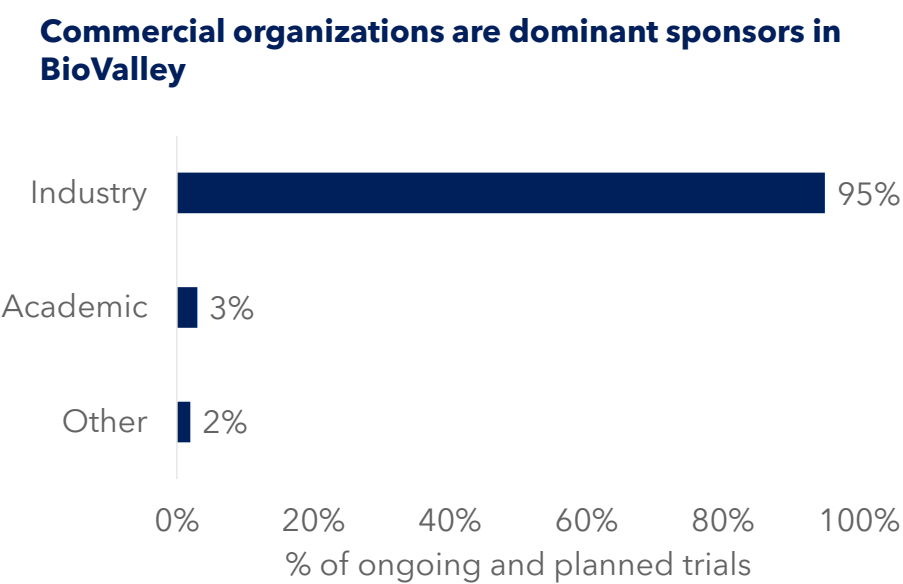
The region has experienced a significant 50% decline in clinical trial initiations from 2015 to 2024, dropping from approximately 320 trials to 160 trials annually. Despite the overall contraction, the relative proportion of trials across phases has remained stable.



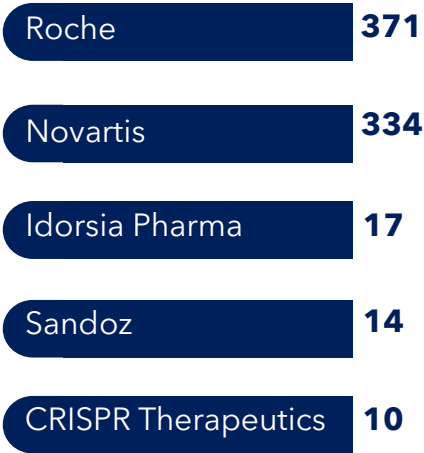
Currently there are **809** ongoing and planned trials sponsored by organizations headquartered in BioValley cluster. **167** are in Phase 1, **254** in Phase 2, and **208** in Phase 3 with **180** trials in Phase 4.

The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within BioValley cluster have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in BioValley



Top 5 trial sponsors in BioValley based on ongoing and planned trial count

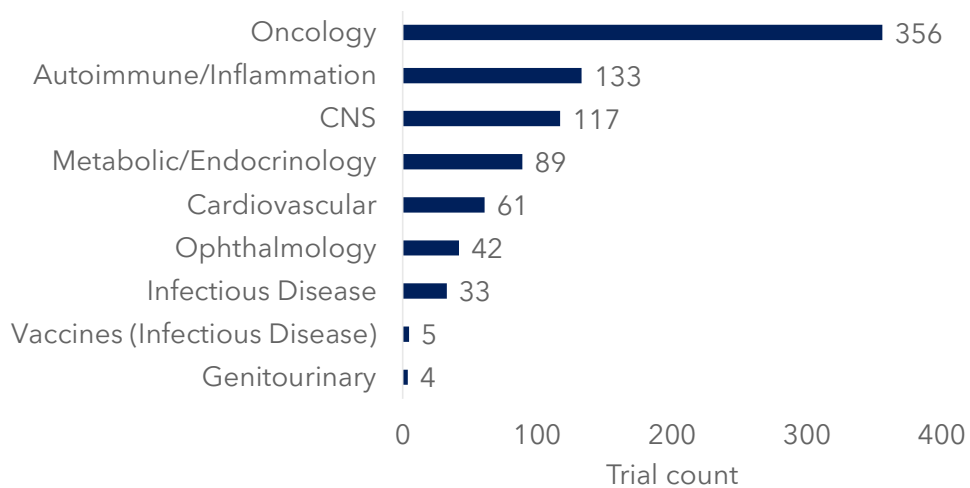


Roche stands out as a major contributor within BioValley cluster, sponsoring **371** clinical trials, followed by Novartis with 334 trials. Idorsia ranks third, though with a significantly smaller number of 17 trials.

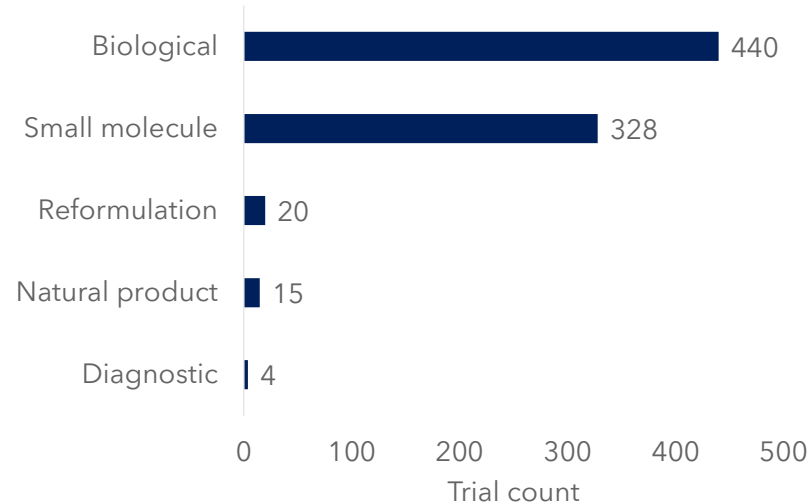
The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within BioValley cluster have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in BioValley

Most ongoing and planned trials in Oncology



Biologics are the dominant drug type in ongoing and planned trials

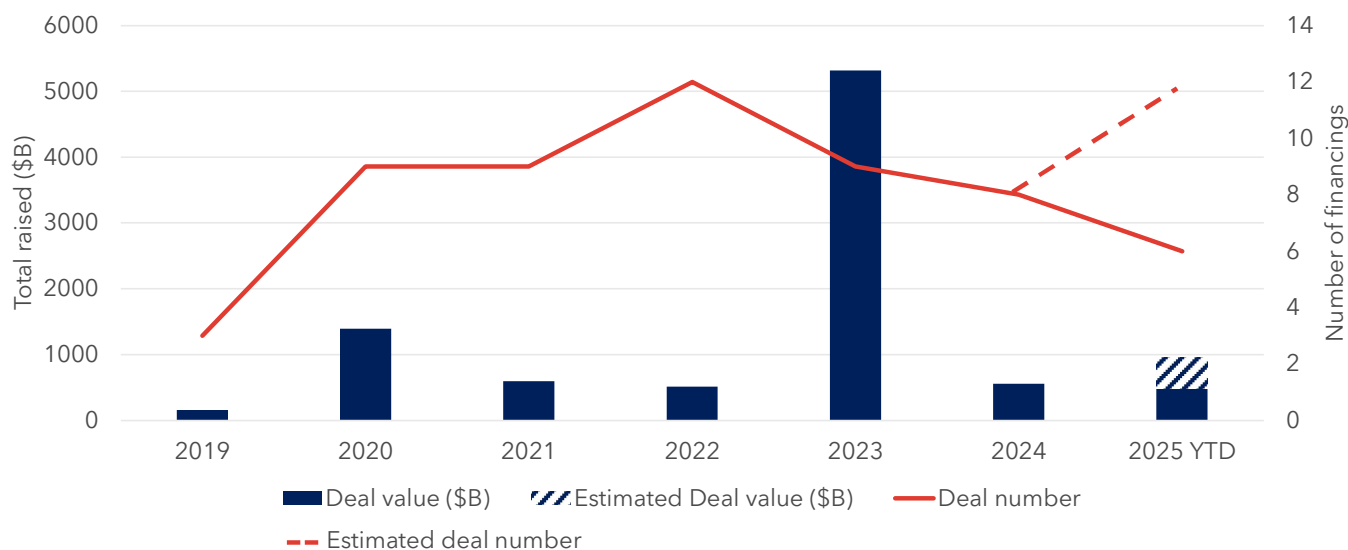


Oncology remains the leading therapeutic area, collectively accounting for 356 ongoing and planned clinical trials. **Biologics** are the dominant drug modality, followed by small molecules.

The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within BioValley cluster have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Financing statistics for BioValley

Financing activity in the BioValley cluster



There was a noticeable spike in deal value in 2023 (~\$5.3B) despite there being only 9 transactions. This is due to Sandoz's debt financing of \$5B in preparation to spin-off from Novartis. Apart from this standout year, the **deal sizes have remained relatively consistent**, although there have been some fluctuations in deal volume over the period. Deal activity peaked in 2022 with 12 deals and has declined since. At the current pace 2025 deal volume appears to be rebounding, but deal values remain subdued.

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within BioValley have been included in this analysis. For financing activity, deal values were disclosed in 37 of 56 deals.

Largest financing:
\$5B debt financing in
 September 2023

SANDOZ

Largest deal of 2025 YTD:
\$200M series A financing in May

Windward Bio

Largest convertible debt:
\$132M in June 2020

basilea

Largest PIPE:
\$592M PIPE financing in
 October 2020

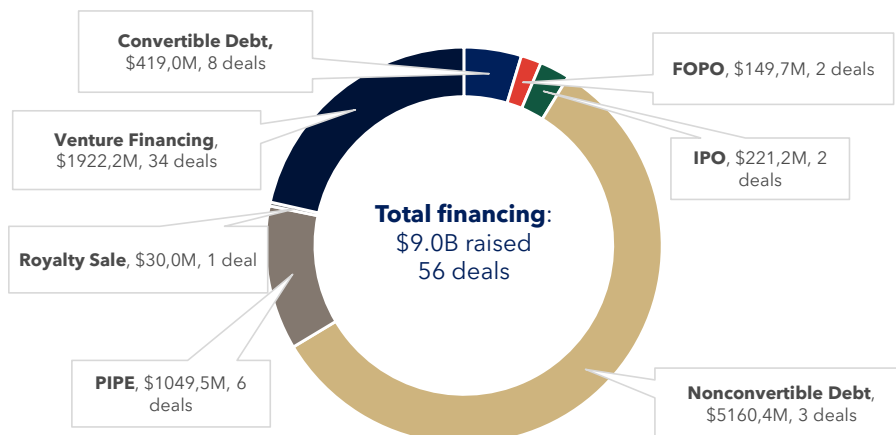
idorsia

Financing statistics for BioValley

Financing breakdown since 2019

Venture financing represents the most frequently used funding source with \$1.92B across 34 deals. PIPE transactions contributed significantly with ~\$1B across 6 deals, while public market activity included \$221.2M in IPOs (2 deals) and ~\$150M in follow-on offerings (2 deals). Debt financing showed strong utilization with convertible debt at \$419M (8 deals) and nonconvertible debt at ~\$5.2B (3 deals), while a single royalty sale generated \$30M.

The financing landscape reflects a mature market, with companies tapping into diverse capital sources across private and public channels.



■ Convertible Debt ■ FOPO ■ IPO ■ Nonconvertible Debt ■ PIPE ■ Royalty Sale ■ Venture Financing

FOPO = follow-on public offering, PIPE = private investment in public equity, IPO = initial public offering, PRV = Priority Review Voucher

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within BioValley have been included in this analysis. For financing activity, deal values were disclosed in 37 of 56 deals.

Largest financing:
\$5B debt financing in
September 2023

SANDOZ

Largest deal of 2025 YTD:
\$200M series A financing in May

Windward Bio

Largest convertible debt:
\$132M in June 2020

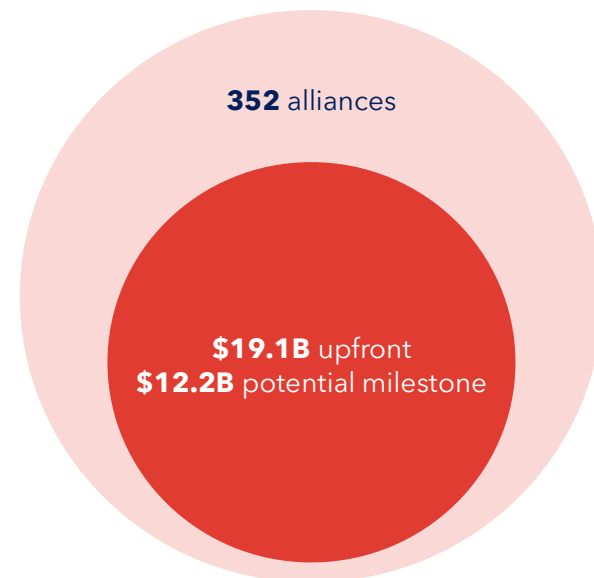
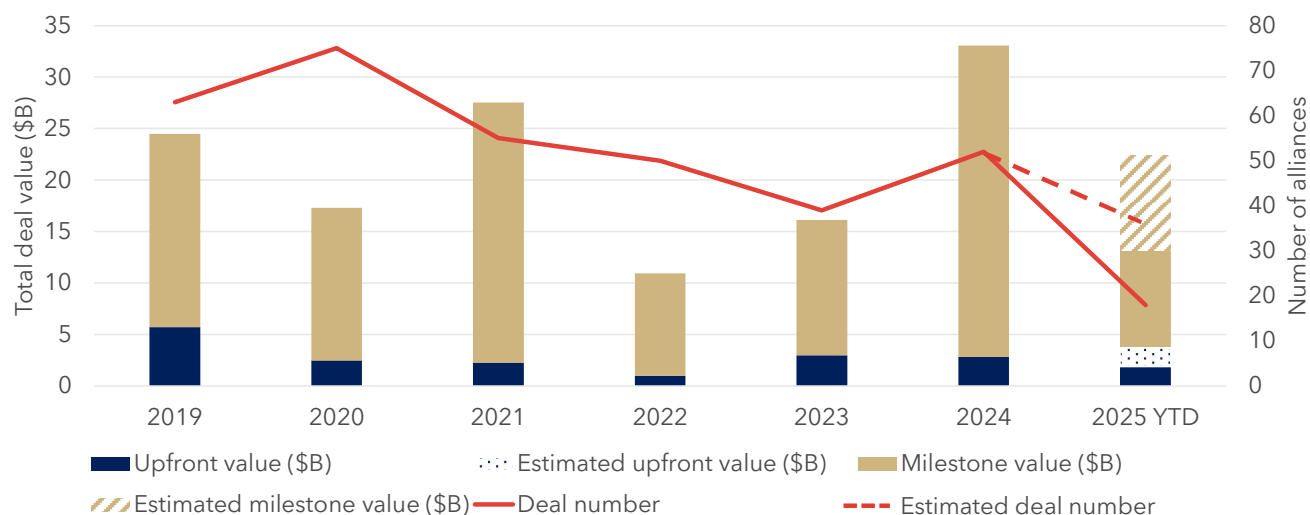
basilea

Largest PIPE:
\$592M PIPE financing in
October 2020

idorsia

Partnering statistics for BioValley

Alliance activity in BioValley cluster



Alliance activity peaked in 2020 with 75 deals, and has declined since. A slight uptick was seen in 2024 while alliance activity in 2025 so far remains low. Total deal value has fluctuated somewhat, although encouragingly peaked in 2024, reaching ~\$33B.

Recent deals include **co-development of petrelintide, agreed between Zealand and Roche in 2025**. The two companies will collaborate to co-develop and co-commercialize petrelintide, Zealand Pharma's amylin analog as a standalone therapy as well as a fixed-dose combination with Roche's lead incretin CT-388.

Largest partnering deal:

Recursion entered license agreement with Roche and Genentech for **\$12.4B**, agreed in 2021

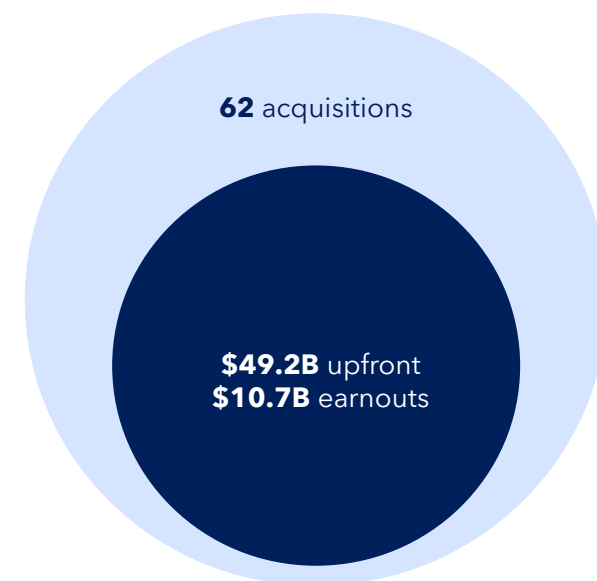
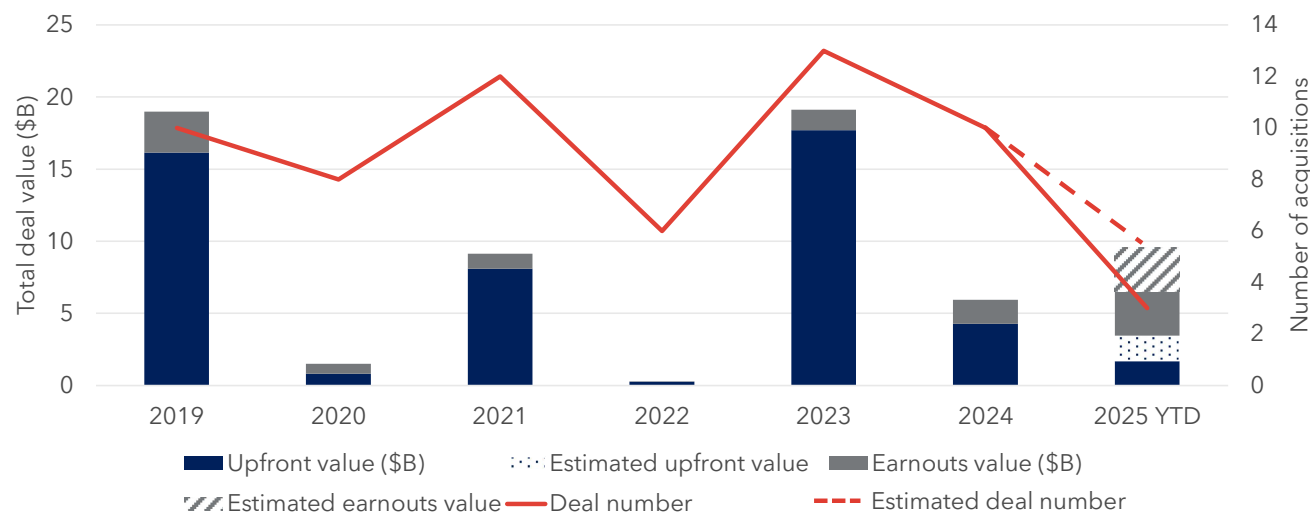


RECURSION
pharmaceuticals

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025. Only companies with their headquarters within BioValley have been included in this analysis. For alliance activity, deal values were disclosed in 174 of 352 deals.

Acquisition statistics for BioValley

Acquisition activity in BioValley cluster



M&A activity has experienced volatility. The market was particularly strong in 2019 (\$19B, 10 deals) and 2023 (\$19B, 13 deals), but the years in-between saw much lower deal values. 2024 and 2025 YTD have been sluggish, reflecting M&A market headwinds. Deals are increasingly **earnout-heavy**, indicating buyers' preference for performance validation before committing significant capital. One key recent acquisition was Roche's purchase of Telavant from Roivant for ~\$7.3B in 2023 which included rights to the novel TL1A directed antibody, RVT-3101, for the treatment of inflammatory bowel disease.

Largest acquisition deal:
Novartis acquired The Medicines Co. for **\$9.7B**, agreed in 2019



Spotlight on Flanders

Flanders—together with the rest of Belgium—has a long tradition of innovation in biotechnology and health sciences, dating back to the 1970s with Janssen Pharmaceutica (J&J). Early breakthroughs in **recombinant DNA** and later **monoclonal antibodies** laid the groundwork for today's therapies, supported by strong government incentives and grants widely regarded as among the best in Europe.

EUR 92B

total market capitalization by publicly listed Belgian biotech companies, mainly driven by the stellar market performance of argenx and UCB in the Flanders region

25

incubators, accelerators, science parks and 4 university-hospitals, including the largest university hospital in Europe, established in the region

< 2hrs

away from the major European cities, such as London, Paris, Cologne and Amsterdam, putting it right in the midst of a European network for life sciences. Home to Brussels Airport, the world largest biopharma logistic hub

+500

companies in life sciences including a growing healthtech hub and home to the largest concentration of Tier 1 biopharma companies

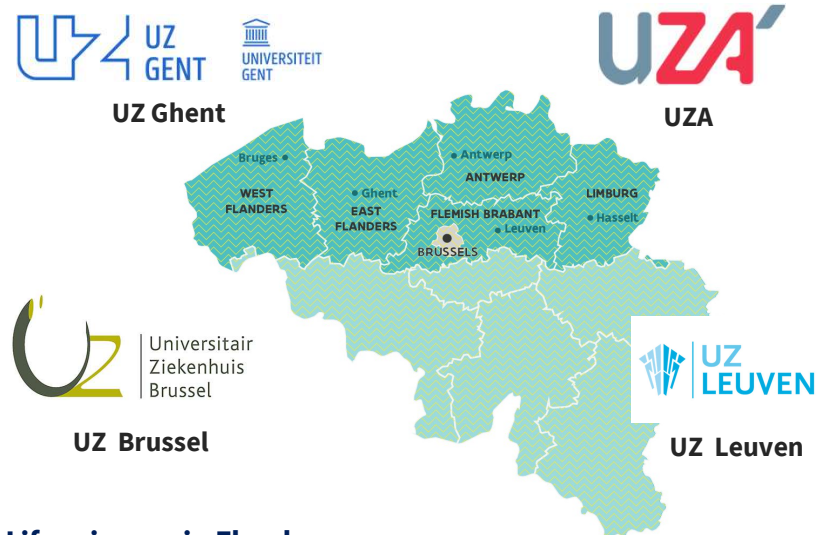
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top-tier universities, such as Leuven University, Ghent University, and Antwerp University and the renowned research institutes VIB and IMEC

1st in class

for R&D expenditure per capita and 2nd largest biopharma exporter in Europe.

Strong network of hospitals and clinical trials



Life sciences in Flanders

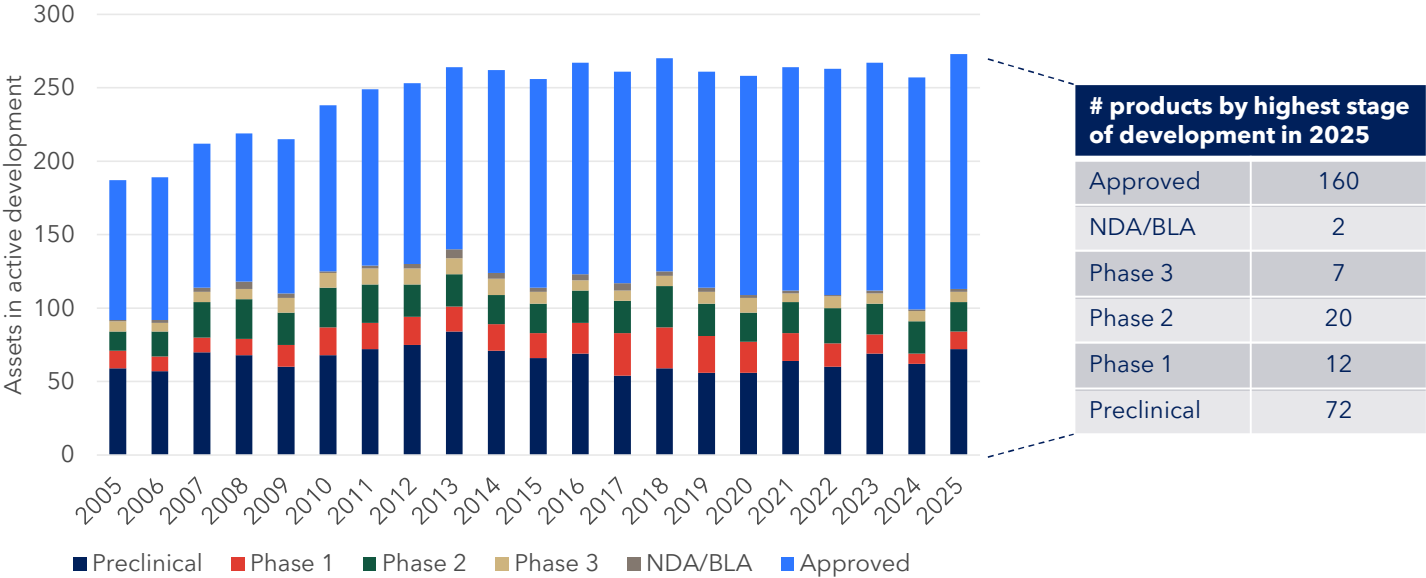
Flanders (Belgium) is a leading hub for life sciences and health, driving innovation in drug discovery, advanced therapies, digital solutions and diagnostics. The region unites biotech pioneers with CROs, CMOs, CDMOs, and clinical trial specialists to accelerate breakthroughs in **neurology**, oncology, regenerative medicine, and infectious as well as autoimmune diseases. With a **high density of hospitals**, including university hospitals, Flanders boasts extensive clinical trial activity.

With the ambition to become one of the top 5 life sciences clusters in Europe and top 10 globally, flanders.bio has long represented Flanders' innovative life sciences sector. In a strategic move to strengthen its impact, flanders.bio has now merged with MEDVIA to form Biovia – Flanders' new health innovation cluster. Biovia brings together over 400 members and partners, including companies, research institutes, universities, hospitals, service providers, investors, and government stakeholders.



Drug development in Flanders

Biopharma R&D pipeline in Flanders



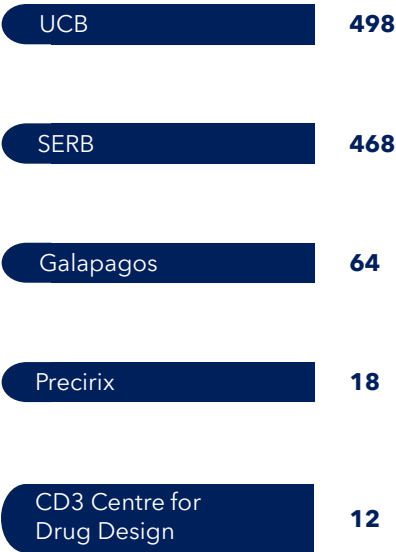
R&D pipeline maturation and recent momentum in 2025:

The total number of products in active development hit a steady plateau from 2011 to 2024 with ~250-260 products. The number of drugs in Phase 1 development showed a gradual decline from 2017 to 2024 but encouragingly it has rebounded somewhat in 2025. Commercialization attempts have been successful; the number of approved assets has jumped from 120 in 2011 to 160 in 2025.

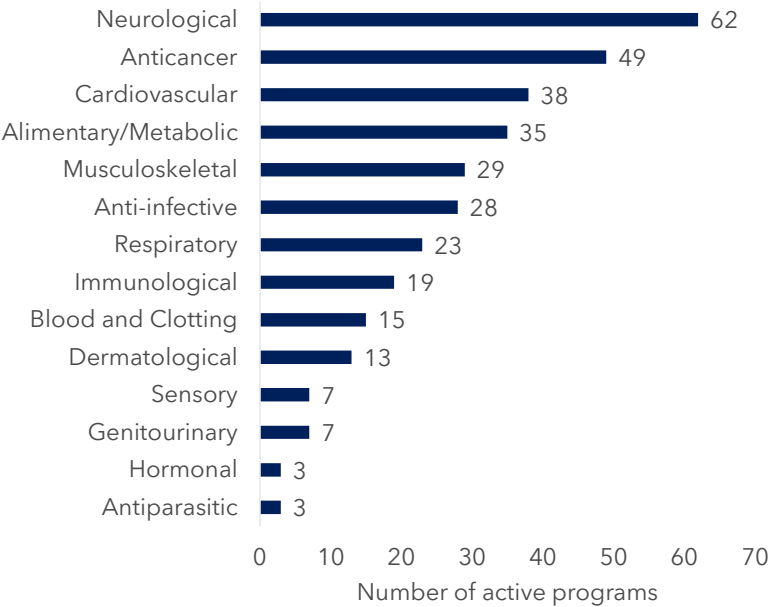
The analysis is based on data from Citeline's Pharmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Pharmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within Flanders have been included in this analysis.

Drug development in Flanders

Top 5 companies based on portfolio size in Flanders



Breakdown of drug programs in active development by disease area



UCB leads Flanders in pipeline depth:

UCB dominates the Flanders biocluster with 147 pipeline assets, representing nearly **6 times** the portfolio size of the second-largest company. SERB Pharmaceuticals and Galapagos follow with 25 and 15 programs respectively.

Neurology is dominant therapeutic area:

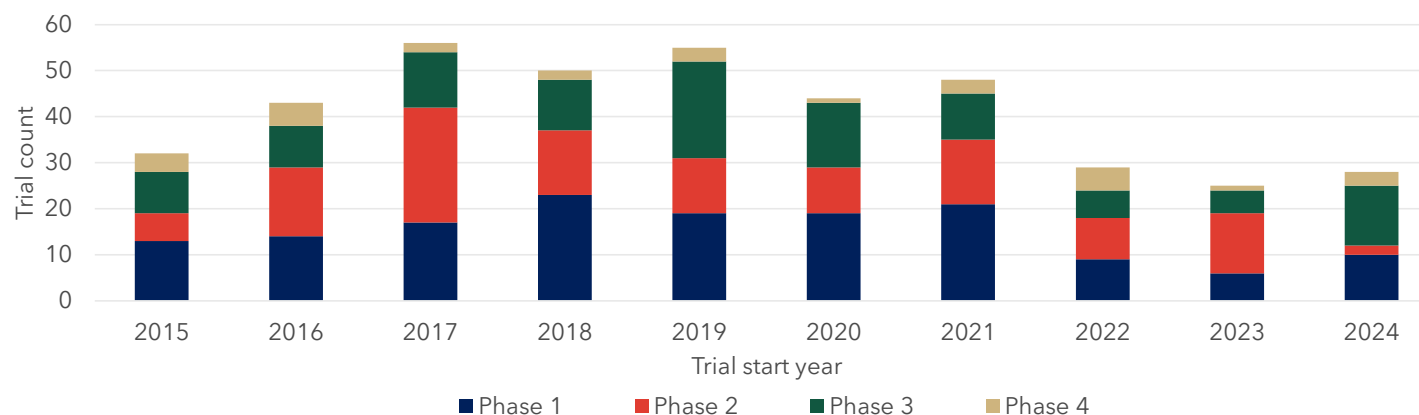
With **62 neurology programs**, Flanders has established neurology as its core area of therapeutic innovation. Leading companies such as UCB, SERB Pharmaceuticals, and CD3 Centre for Drug Design are at the forefront of this development.

The analysis is based on data from Citeline's Phmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Phmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within Flanders have been included in this analysis.

Trials sponsored by organizations headquartered in Flanders

The number of trials sponsored has decreased by almost half from the peak in 2017

The number of initiated trials sponsored by organizations within Flanders has shown a downward trend recently, although number of trial initiations were slightly up in 2024.

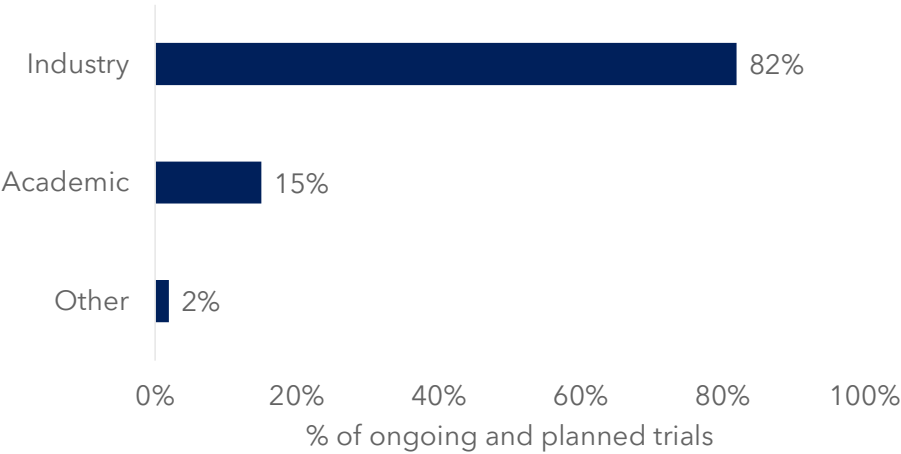


Currently there are **97** ongoing and planned trials sponsored by organizations headquartered in the Flanders cluster. **27** are in Phase 1, **23** in Phase 2, and **31** in Phase 3, with **16** trials in Phase 4.

The analysis is based on data from Citeline's Trialtrave obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within Flanders have been included in this analysis. Trialtrave captures data as it becomes available in the public domain. As such, the number of trials in Trialtrave with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in Flanders

Commercial organizations are dominant sponsors in the Flanders cluster



Top 5 Flanders trial sponsors based on ongoing and planned trial count

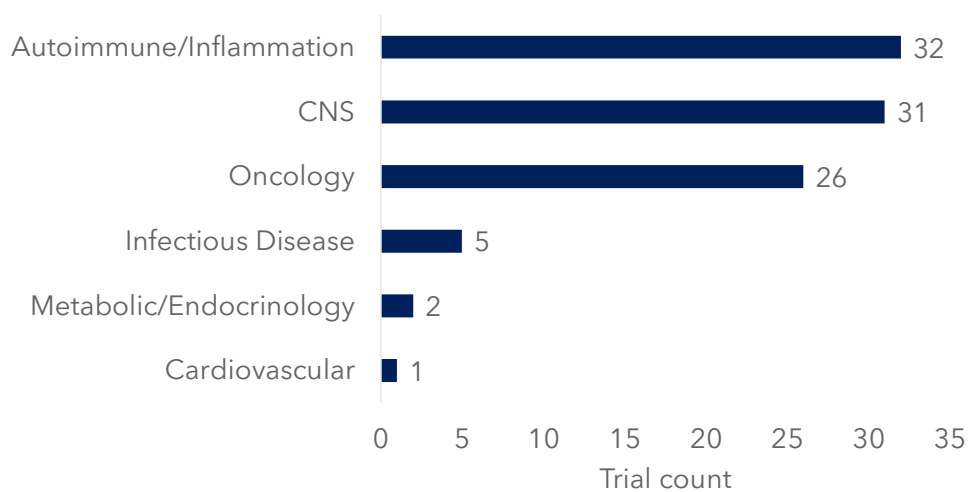


UCB stands out as a major contributor within the Flanders cluster, sponsoring **39** clinical trials. Numerous other, predominantly industry-led, organizations also play a significant role in supporting the region's life sciences ecosystem.

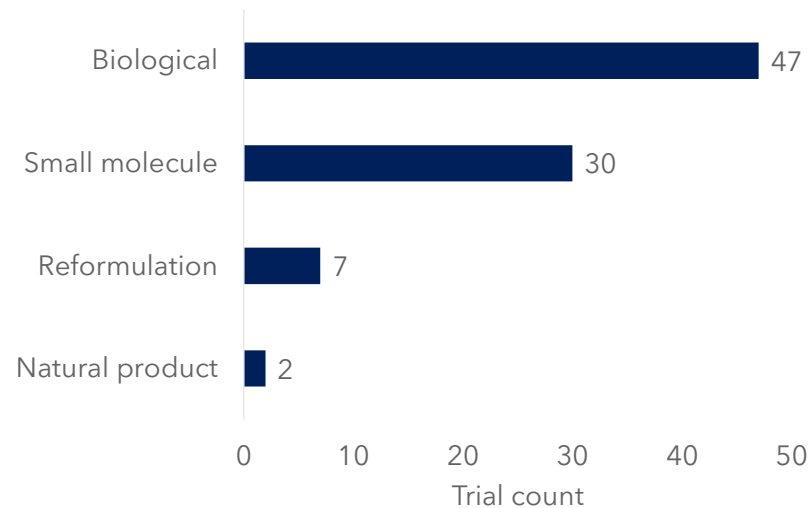
The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within Flanders have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in Flanders

Most ongoing and planned trials in Autoimmune/Inflammation, CNS, and Oncology



Biologics are the dominant drug type in ongoing and planned trials

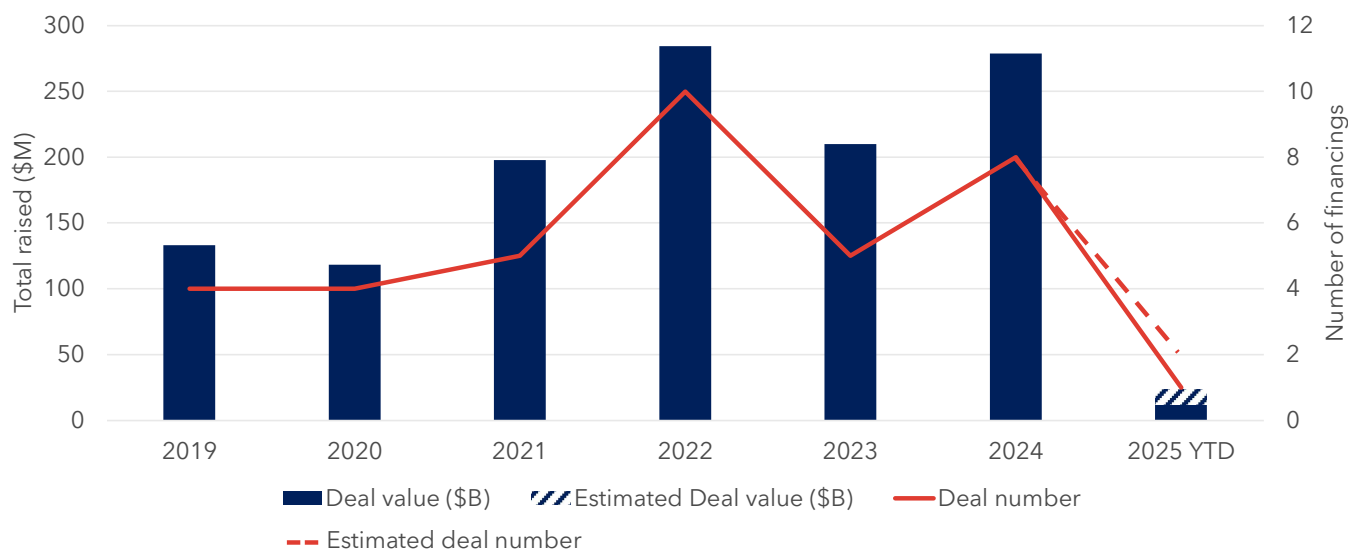


Autoimmune/Inflammation, CNS, and Oncology remain the leading therapeutic areas, collectively accounting for 89 ongoing and planned clinical trials. **Biologics** are the dominant drug modality, followed by small molecules.

The analysis is based on data from Citeline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within Flanders have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Financing statistics for Flanders

Financing activity in Flanders



The Flanders cluster has established itself as a significant hub, with total deal values consistently **exceeding \$100M annually since 2019**.

Financing activity was particularly strong in 2022 with \$285M raised across 10 deals. Activity was also robust in 2024 with \$275M raised across 8 deals, demonstrating sustained investor confidence in the region's biotech ecosystem. 2025 YTD shows limited activity so far with only an estimated \$11.7M for 1 deal, we await to see if momentum will pick up.

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within Flanders have been included in this analysis. For financing activity, deal values were disclosed in 37 of 37 deals.

Largest financing:
\$114.5M Series B
 Financing in July 2022



Largest deal of 2025 YTD:
\$11.7M convertible debt financing in
 May

sequanamedical

Largest convertible debt:
\$66M in October 2022



Largest PIPE:
\$63M PIPE financing in January
 2019

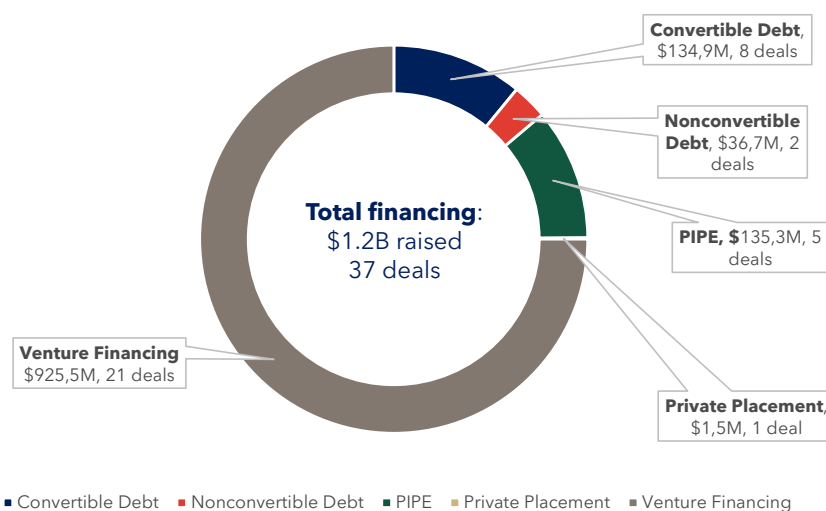


Financing statistics for Flanders

Financing breakdown since 2019

Venture financing dominates life sciences funding at \$925.5M across 21 deals, about 75% of total capital, highlighting investor confidence in early-stage innovation. Alternative financing instruments show balanced utilization, with **convertible debt** (\$134.9M, 8 deals) and **PIPE** transactions (\$135.3M, 5 deals) representing similar capital volumes despite different deal counts.

The financing mix demonstrates some diversification beyond traditional equity, leveraging multiple capital sources to optimize funding structures and maintain operational flexibility.



PIPE = private investment in public equity

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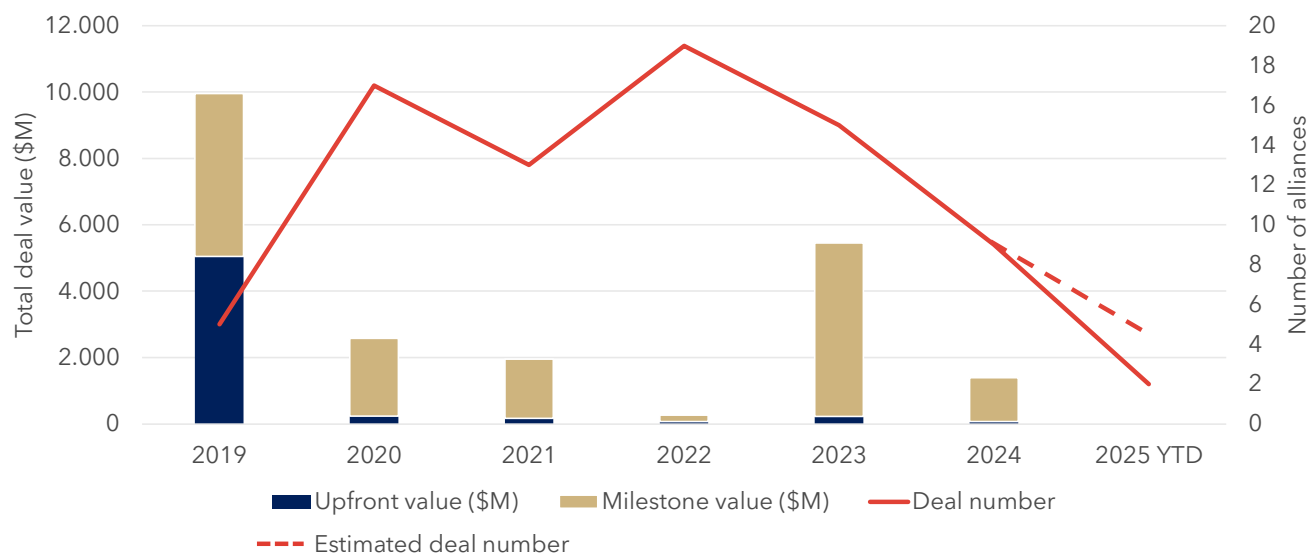


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\$63M PIPE financing in January
 2019

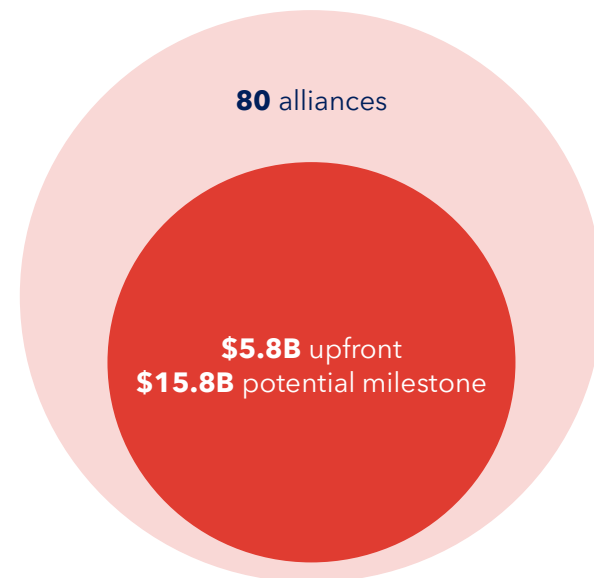


Partnering statistics for Flanders

Alliance activity in Flanders cluster



Number of alliances established annually has fluctuated somewhat, from a low of 5 in 2019 to a peak of 19 in 2022. 2024 and 2025 YTD have been quiet on the deal making front which perhaps reflects a wider slow down in alliance activity across the industry. **2019 and 2023** were standout years in terms of deal value. A key recent deal in terms of value is Eli Lilly's global licensing deal for CFTX-1554's from Confo Therapeutics for ~\$2.7B in 2023 and the licensing agreement between Nanobiotix with Janssen for worldwide co-development and commercialization of NBTXR3 in 2023.



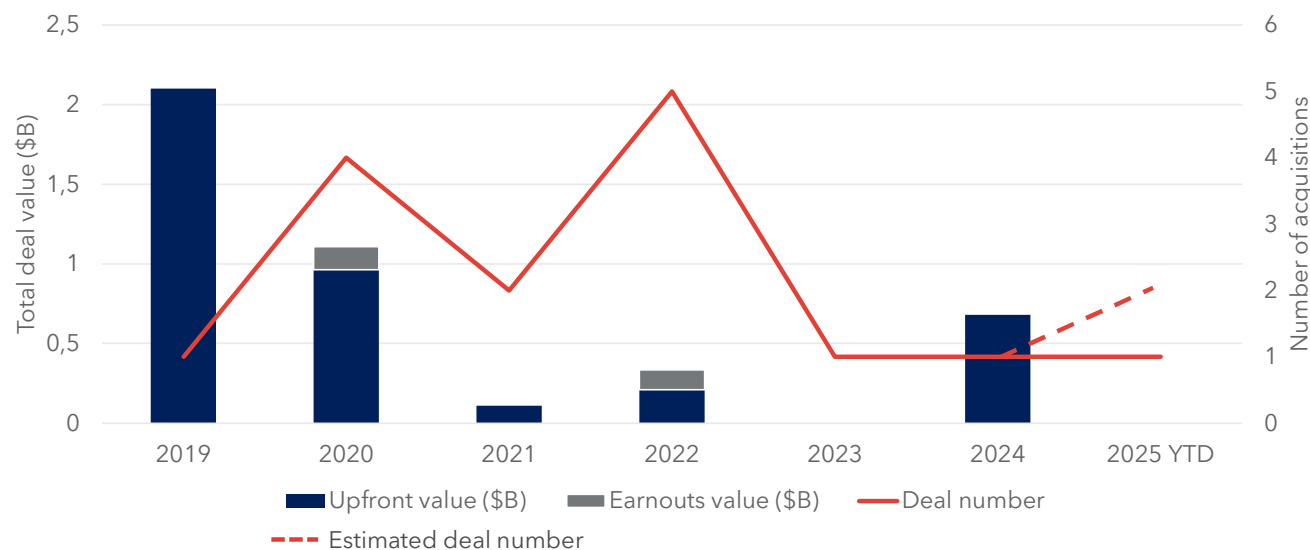
Largest partnering deal:

Gilead and Galapagos announced major multi-project collaboration for ~\$10B, agreed in 2019

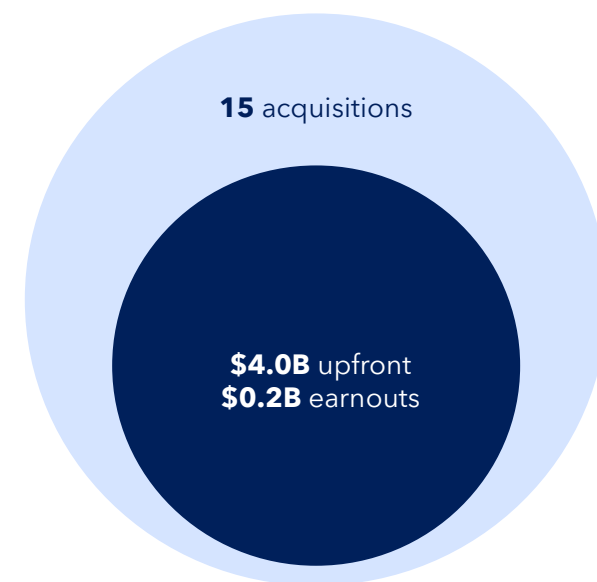
Galápagos

Acquisition statistics for Flanders

Acquisition activity in Flanders cluster



The largest acquisition in recent years was **UCB's acquisition** of Ra Pharma for \$2.1B in 2019 to expand its rare disease portfolio, specifically in myasthenia gravis. Other key acquisitions include the acquisition of Boston Scientific's BTG Specialty Pharmaceuticals Business by SERB for \$800M, agreed December 2020. The addition of BTG Specialty Pharmaceuticals aimed to complement SERB's own diversified portfolio of both rare and critical care prescription medicines.



Largest acquisition deal:
UCB acquired Ra Pharma for **\$2.1B**, agreed in 2019



Spotlight on BioM

BioM Cluster covers the Greater Munich area and coordinates the network of Bavarian biotechnology hotspots. The cluster's core strengths lie in the development of **innovative therapeutics, diagnostics**, and underlying technologies, especially for personalized medicine.

58,000

regional employees in private life science companies

+240

local Bavarian biotechs* (SME), along with 70 international biotechs

~80

new life science start-ups have been founded since 2015

+527

biotechnology and pharmaceutical companies, including CROs and others (e.g., CMOs, suppliers, reagent and technology providers), identified regionally

5

renowned academic centers include 2 elite universities and a large number of renowned research institutions, such as biological/medical Max Planck Institutes

>EUR 470M

in funding and financing in 2023 in the Bavaria region



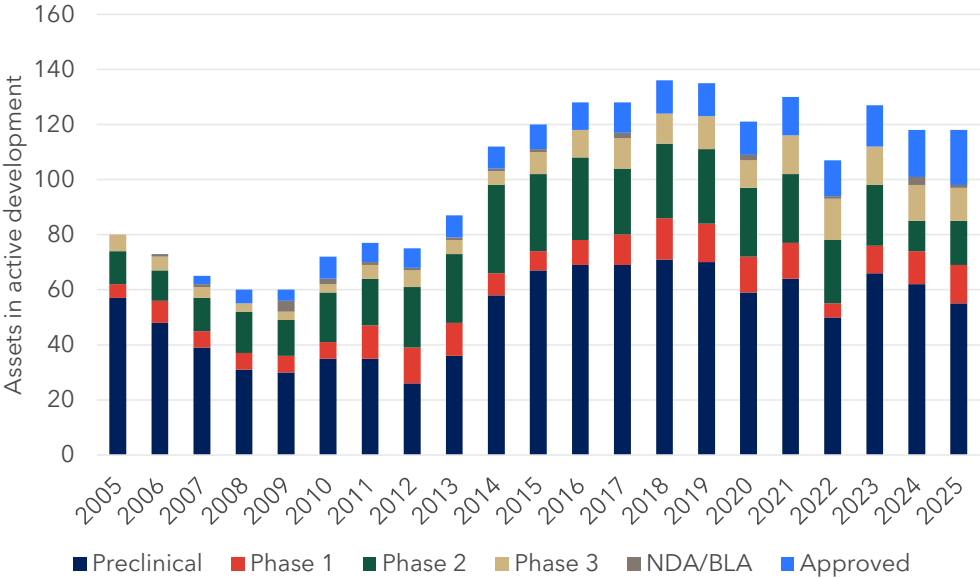
Munich and the other 4 biotech clusters

BioM cluster is home to a highly innovative biotech scene with hotspots in **Munich** (with Martinsried and Freising), Regensburg, Würzburg, Straubing and Erlangen-Nuremberg. These offer globally competitive framework conditions for innovation, company development and growth with specialized networks and modern infrastructure, supported by the BioM cluster organization through constructive dialogue with politics, science and industry.

Notable companies are **Formycon** which develops proprietary nanoparticle-based carrier systems for pharmaceutical formulations, **Siemens Healthineers** specializing in medical technologies including medical imaging and diagnostics, and **MorphoSys**¹ focusing on the development of antibody treatments. MorphoSys was one of just a few biotech companies in Europe valued at over €1B (the site in Germany will close by the end of 2025 after the acquisition by Novartis).

Drug development in BioM

Biopharma R&D pipeline in BioM



products by highest stage of development in 2025

Approved	20
NDA/BLA	1
Phase 3	12
Phase 2	16
Phase 1	14
Preclinical	55

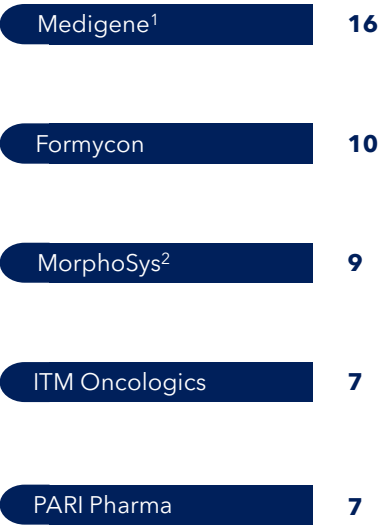
Marginal decline from the peak in 2018/2019:

The biopharma R&D pipeline within BioM cluster showed steady and significant growth in assets in active development from 2012 to 2019, followed by a **slight decrease** from 2020 to 2025. Late-stage assets (Phase 3, NDA/BLA, Approved) remain stable or slightly up—suggesting R&D programs are still maturing but new inputs are slowing.

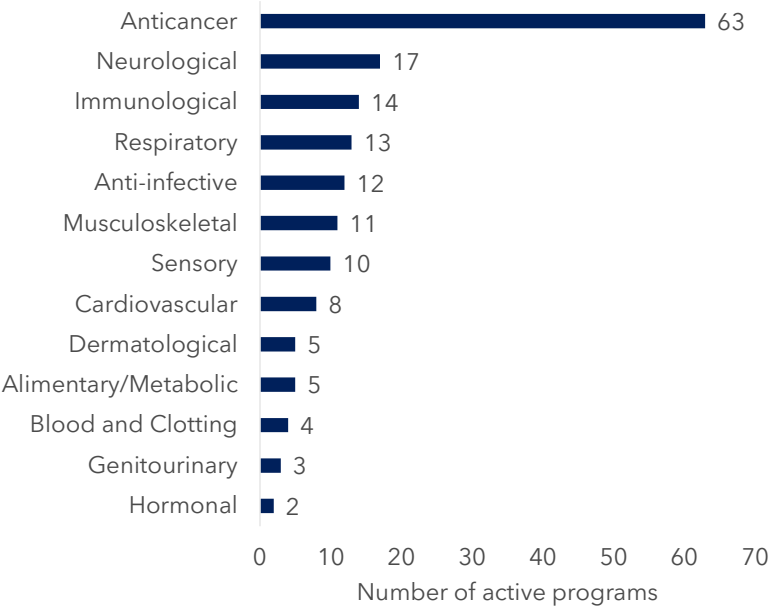
The analysis is based on data from Citeline's Pharmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Pharmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within BioM have been included in this analysis.

Drug development in BioM

Top 5 companies based on portfolio size in BioM cluster



Breakdown of drug programs in active development by disease area



Oncology at the core of BioM's strength:



Oncology is the primary therapeutic focus among biotechnology and pharmaceutical companies in BioM cluster, with 63 active programs. This concentration reflects the region's specialization in innovative, high-impact medicine. Key contributors include MorphoSys² and ITM Oncologics.

Neurology is also an area of strong interest:



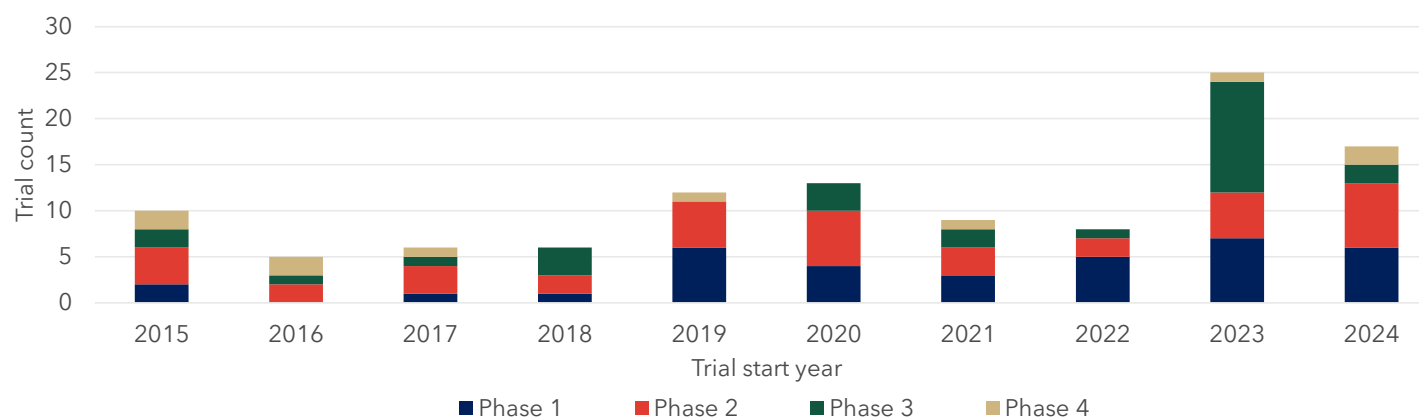
Neurology is also a particularly hot area, with 17 active programs. Key contributors include HMNC Brain Health, advancing a Phase 2 asset, and Origenis.

The analysis is based on data from Citeline's Pharmaprojects obtained in July 2025 and from annual snapshots taken in May each year. Pharmaprojects tracks industry-sponsored development only. Active development includes pre- and post-launch products. Only companies and their subsidiaries with headquarters located within BioM have been included in this analysis. ¹ Medigene filed for insolvency and has opened insolvency proceedings in August 2025. ² The MorphoSys site in Germany is expected to close by the end of 2025 after the acquisition by Novartis ([link](#)).

Trials sponsored by organizations headquartered in BioM

The number of trials peaked in 2023, driven by Phase 3 growth

Overall, clinical trial activity has increased since 2015. It peaked in 2023, driven by a sharp rise in Phase 3 trials. The general increase in Phase 1 and 2 trial counts in recent years reflects a healthy development landscape.

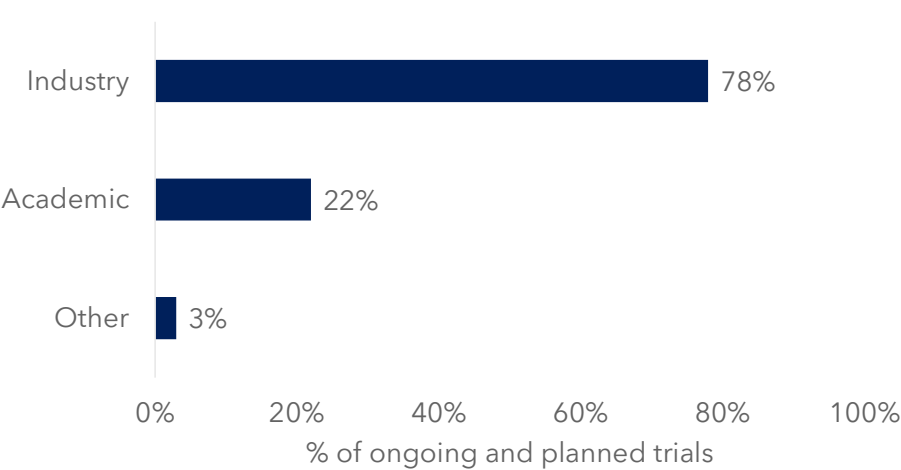


Currently there are **65** ongoing and planned trials sponsored by organizations headquartered in BioM cluster. **23** are in Phase 1, **23** in Phase 2, and **18** in Phase 3 with **1** trial in Phase 4.

The analysis is based on data from Citeline's Trialtrave obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within BioM have been included in this analysis. Trialtrave captures data as it becomes available in the public domain. As such, the number of trials in Trialtrave with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Trials sponsored by organizations headquartered in BioM

Commercial organizations are dominant sponsors in BioM cluster



Top 5 BioM trial sponsors based on ongoing and planned trial count

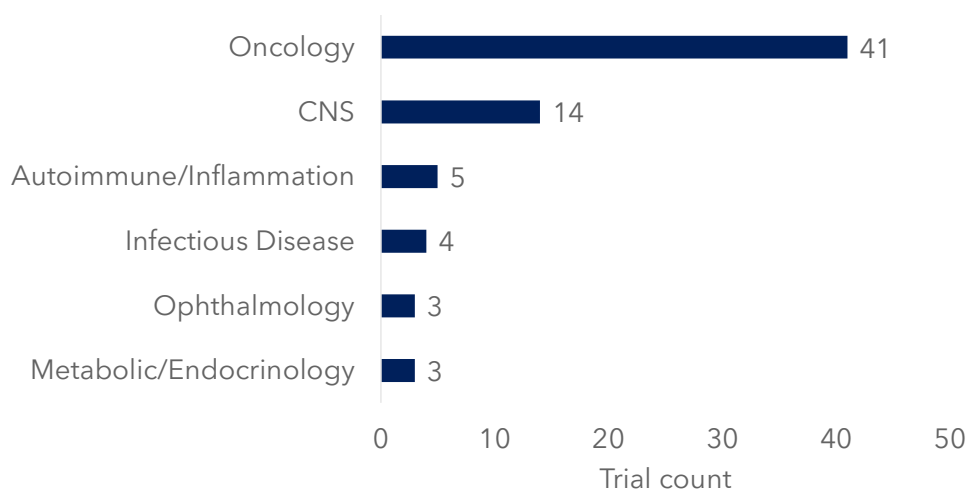


Siemens Healthineers is a key player within BioM cluster, sponsoring **12** clinical trials, while numerous other organizations—primarily from industry—also contribute to the region’s vibrant and dynamic ecosystem.

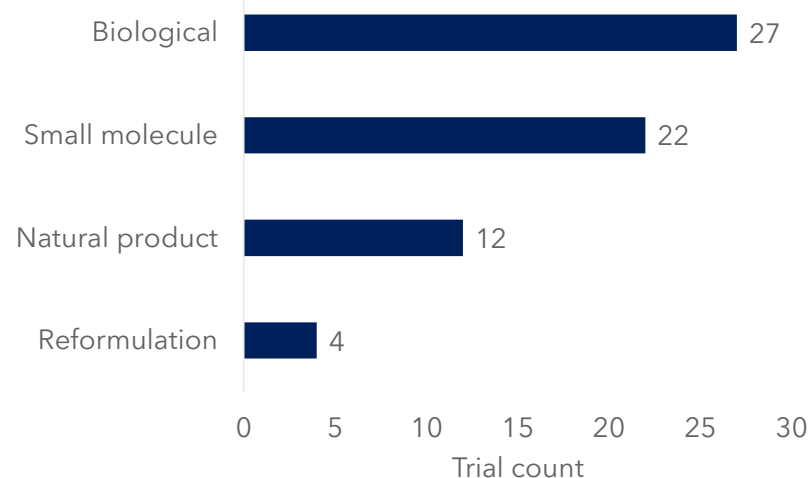
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Trials sponsored by organizations headquartered in BioM

Most ongoing and planned trials in oncology



Biologics are the dominant drug type in ongoing and planned trials

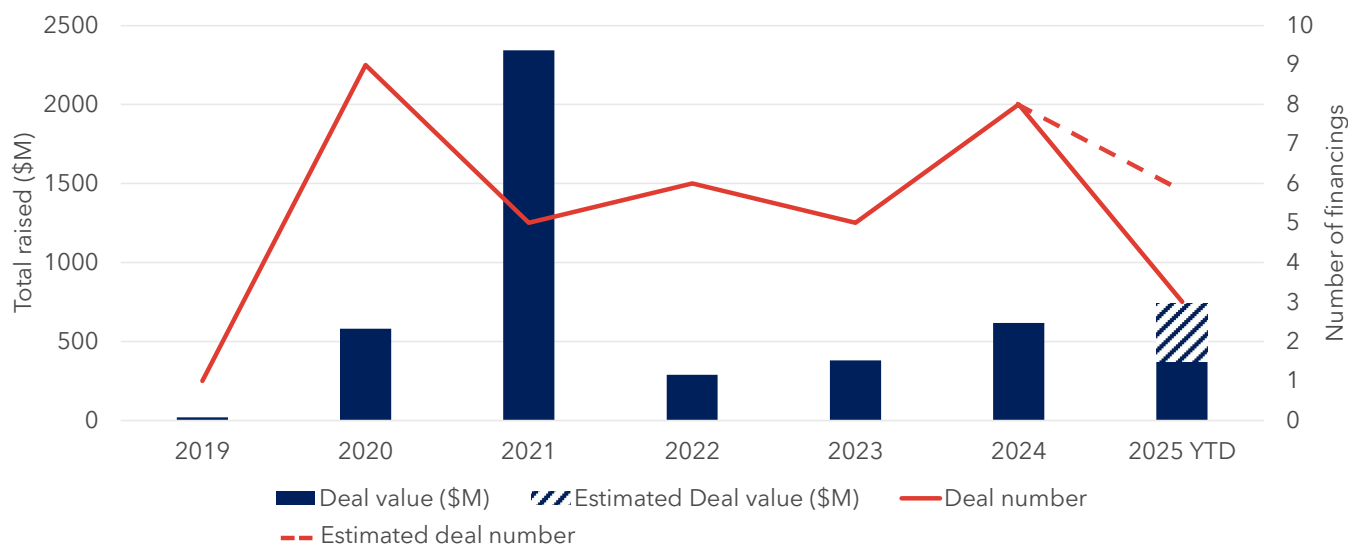


As expected, oncology is the dominant disease area, with **41** ongoing and planned trials, followed by CNS. **Biologics** are the dominant drug modality in ongoing and planned trials.

The analysis is based on data from Cyteline's Trialrove obtained in July 2025. A product may be tested in more than one disease area in a single trial and a trial may have more than one sponsor. Phase 2 includes Phase 1/2 and Phase 2 trials; Phase 3 includes Phase 2/3 and Phase 3 trials; Phase 4 includes Phase 3/4 and Phase 4 trials. Only companies with their headquarters within BioM have been included in this analysis. Trialrove captures data as it becomes available in the public domain. As such, the number of trials in Trialrove with a start date of 2024, for instance, are likely to increase over time as more data is made available.

Financing statistics for BioM

Financing activity in BioM cluster



Apart from a standout year in 2021, driven by a \$2B royalty sale by Morphosys, total annual deal values have remained largely consistent over time. Annual deal numbers have ranged between 1 to 9. **2020 was a strong year** in terms of deal number with a total of 9 deals, followed closely by 2024 with 8 deals. Key 2024 deals include ITM raising €188M to enhance its radiopharmaceutical pipeline and CatalYm securing \$150M in series D financing to support its phase 2b development program for visugromab.

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within BioM have been included in this analysis. For financing activity, deal values were disclosed in 35 of 37 deals.

Largest financing:
\$2B royalty sale in February 2021

morphosys

Largest deal of 2025 YTD:
\$262M debt financing in May

itm
 PASSION FOR PRECISION

Largest private placement:
\$102M in June 2021

PHARMA SGP

Largest venture round:
\$22M Series B in April 2021

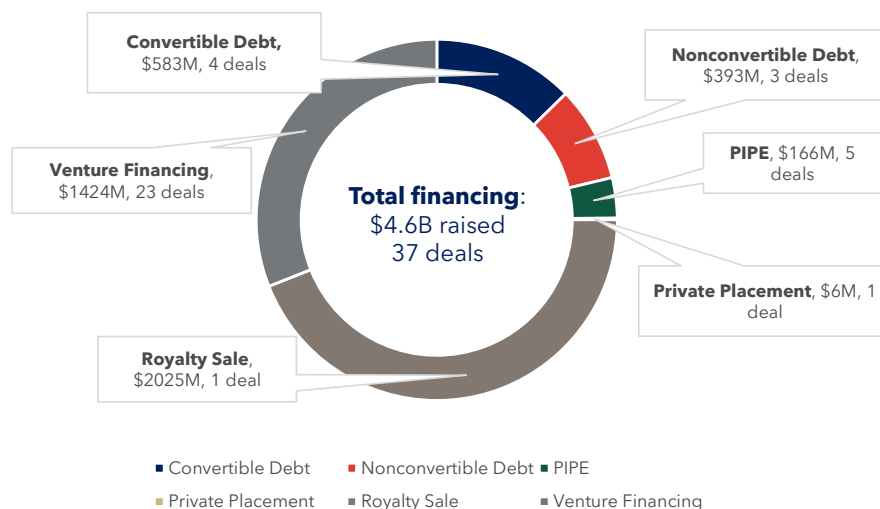
TOPAS THERAPEUTICS

Financing statistics for BioM

Financing breakdown since 2019

A single royalty sale generated ~\$2B and accounted for 44% of financing raised, but venture financing represents by far the most common source of financing with \$1.4B across 23 deals. Alternative debt instruments show significant activity with \$583M in convertible debt (4 deals) and \$393M in nonconvertible debt (3 deals), while PIPE transactions contributed \$166M across 5 deals. Private placement activity was minimal at \$6M for 1 deal.

The data demonstrates a diversified financing landscape with companies utilizing multiple capital sources beyond traditional venture equity.



FOPO = follow-on public offering, PIPE = private investment in public equity

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025, covering the period from January 1, 2019, to June 30, 2025. Only companies with their headquarters within BioM have been included in this analysis. For financing activity, deal values were disclosed in 35 of 37 deals.

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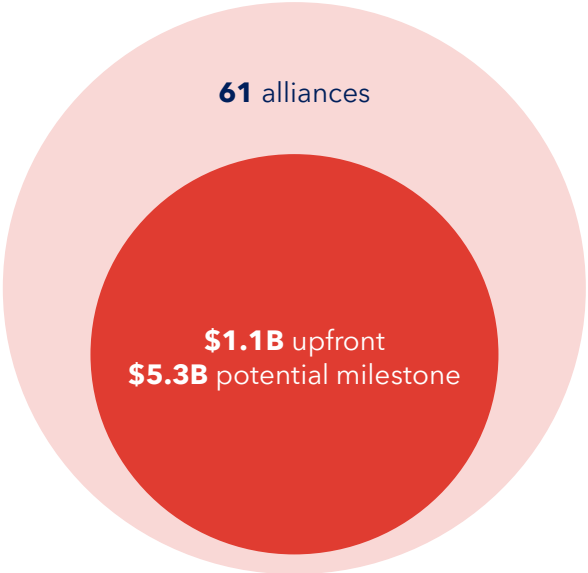
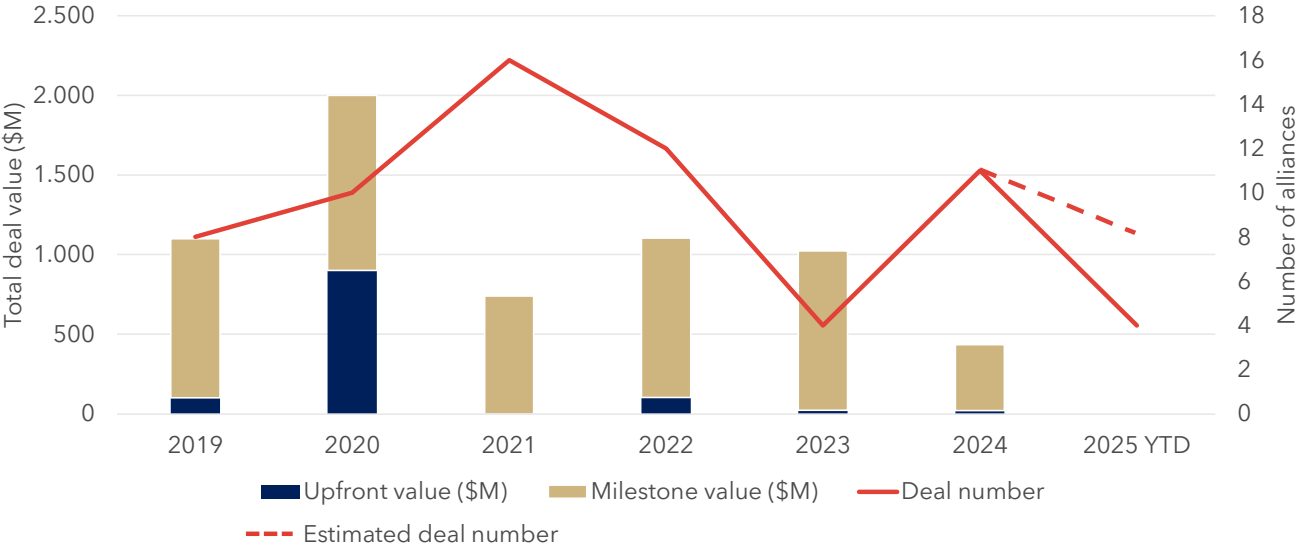
PHARMA SGP

Largest venture round:
\$22M Series B in April 2021

TOPAS THERAPEUTICS

Partnering statistics for BioM

Alliance activity in BioM cluster



Biopharma alliance activity **peaked in 2020 in terms of deal value**, reflecting strong pandemic-era momentum. Since then, both upfront payments and total deal values have declined, and deals in recent years have been milestone-heavy. Deal volume peaked in 2021 with 16 transactions. 2023 was a slow year with only 4 deals, and while 2024 showed a rebound in deal count, the total deal value remained low.

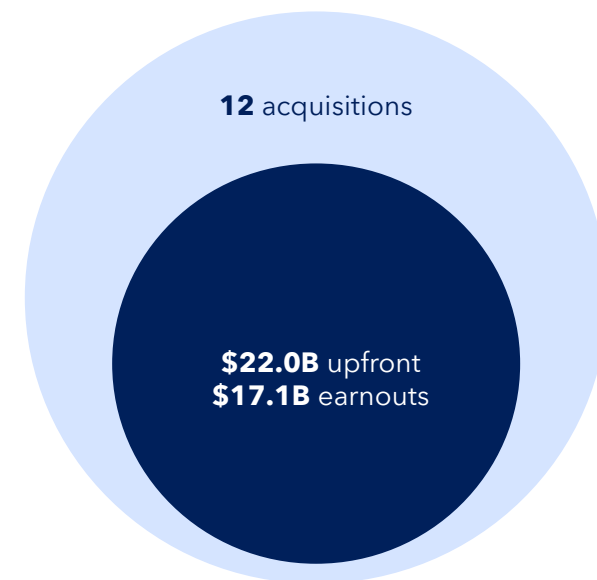
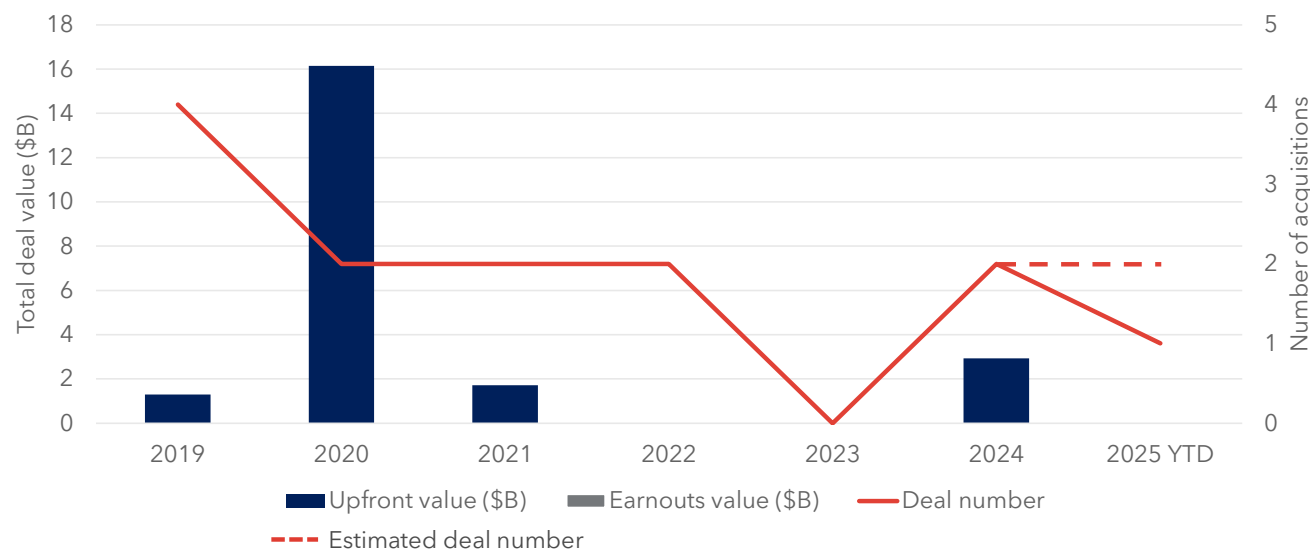
Largest partnering deal:
Incyte paid **\$2B** for rights to MorphoSys's tafasitamab, agreed in 2020*



The analysis is based on data from Citeline's Biomedtracker obtained in July 2025. Only companies with their headquarters within the BioM cluster have been included in this analysis. For alliance activity, deal values were disclosed in 61 of 65 deals. The deal values in 2025 for acquisition activity are not available. *It was later amended to asset purchase agreement in 2024

Acquisition statistics for BioM

Acquisition activity in BioM cluster



M&A activity is typically in the **low single digits** annually reflecting the relatively small size of the cluster. Activity peaked in 2020 in terms of value with over \$16B in total across 2 deals. Since then, total deal values have been lower or not disclosed. In 2024 deals totaled \$2.8B in upfront value across 2 deals. The largest acquisition in recent years was **Siemens Healthineers' acquisition** of Varian Medical for \$16.4B in 2020 to benefit from its radiotherapy offerings. Other key acquisitions include the acquisition of **MorphoSys AG*** by Novartis for \$2.9B, agreed June 2024.

Largest acquisition deal:

Siemens Healthineers acquired Varian Medical for **\$16.4B**, agreed in 2020 to create a comprehensive platform of end-to-end oncology solutions with offerings in screening and diagnosis, care delivery, and post-treatment survival.

SIEMENS
Healthineers

The analysis is based on data from Citeline's Biomedtracker obtained in July 2025. Only companies with their headquarters within the BioM cluster have been included in this analysis. For acquisition activity, deal values were disclosed in 7 of 13 deals. The deal values in 2025 for acquisition activity are not available. *The MorphoSys site in Germany is expected to close by the end of 2025 after the acquisition by Novartis ([link](#)).

Methodology



Methodology

This report has been produced by Medicon Valley Alliance in cooperation with Citeline using data from three proprietary Citeline platforms.

PHARMAPROJECTS CITELINE CLINICAL

Citeline's Pharamprojects has been monitoring and analyzing global pharma R&D activity and trends across diseases, drugs, companies and more for over 40 years. With 90,000+ drug profiles, including 20,000 drugs in active development, Pharamprojects is the trusted reference for the global drug R&D industry pipeline, providing a holistic view from preclinical to launch.

TRIALTROVE CITELINE CLINICAL

Citeline's Trialtrove supports trial decision-makers throughout the clinical trial life cycle, from strategy to execution. Drawing from over 60,000 sources, Trialtrove provides unmatched trial intelligence, curating data on trial benchmarks and metrics, enrollment and study timelines, patient populations, endpoints, outcomes, geographic distribution and more.

BIOMEDTRACKER CITELINE COMMERCIAL

Biomedtracker covers global partnerships, mergers and acquisitions, and financing deals, in the pharmaceutical and healthcare sectors. Deal records date back to 2000. Biomedtracker uses all kinds of publicly available sources. Some of these sources include: Press releases, medical conferences, Government filings, industry conferences, clinical trial registries, journals, and News sources.

Deal type definitions

Financing deal type definitions

Deal type	Abbreviation	Definition
Convertible Debt	-	A financing in which debt, convertible into equity, is sold to investors
Nonconvertible Debt	-	A financing in which debt, not convertible into equity, is sold to investors
Private Placement	-	A financing in which the equity of a company is privately sold to a group of investors
Follow-on public offering	FOPO	An issuance of stock shares following a company's initial public offering (IPO)
Initial public offering	IPO	A financing in which a privately held company converts to a public company by offering for sale a portion of its ownership through newly issued shares
Venture Financing	-	A private equity investment provided at various stages or funding rounds to privately held high-potential, growth or start-up companies
Royalty Sale	-	A financing in which a company sells its potential royalty monetizations on future sales of a product
Private Investment in Public Equity	PIPE	A financing involves the selling of publicly traded common shares or some form of preferred stock or convertible security to private investors
Priority Review Voucher Sale	PRV sale	A financing in which a company sells a Priority Review Voucher for proceeds

Abbreviations

Abbreviation	Expansion	Abbreviation	Expansion
AI	Artificial intelligence	NDA	New drug application
B	Billion	PIPE	Private investment in public equity
BLA	Biological license application	PRV	Priority Review Voucher
CDMO	Contract development and manufacturing organization	R&D	Research & Development
CMO	Contract manufacturing organization	SME	Small and Medium-sized Enterprise
CNS	Central Nervous System	US	United States
CRO	Contract Research Organization	USP	Unique selling point
DKK	Danish krone	VC	Venture capital
DNA	Deoxyribonucleic acid	YTD	Year to Date
EMA	European Medicines Agency		
EU	European Union		
FDA	Food and Drug Administration		
FOPO	Follow-on public offering		
GMP	Good manufacturing practice		
GT	Golden Triangle		
HQ	Headquarters		
IPO	Initial public offering		
M	Million		
M&A	Mergers and acquisitions		
MV	Medicon Valley		



Medicon Valley Alliance

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