

Si Speedinvest

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TechBio x Drug Discovery

Developing new drugs
faster and cheaper

April 2024





Pan-European early-stage venture capital firm with a dedicated Health & TechBio investment team.

Speedinvest is one of Europe's most active Seed funds with 40+ investors based in Berlin, London, Munich, Paris, and Vienna. Our six sector-focused teams are the first to fund Europe's most innovative startups, and our in-house operational pros offer founders hands-on support throughout every stage of their journeys. Wefox, Bitpanda, TIER Mobility, GoStudent, and Wayflyer are among our portfolio of 300+ companies.

We believe the next decade will be transformational for health & techbio. Advances in computing, technology, and biology are compounding at a dizzying pace, yet healthcare remains one of the least digitized sectors. The case for change has never been clearer.



+ 2 to be disclosed



Global startup & venture capital intelligence platform.

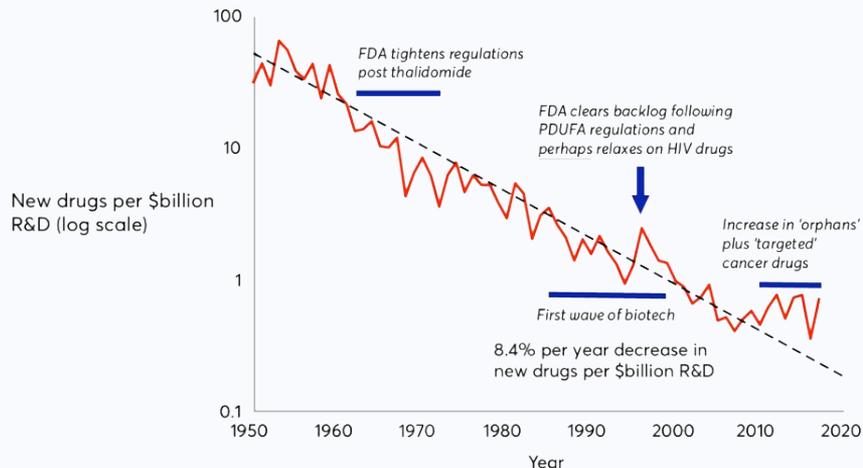
Dealroom.co is the foremost data provider on startup, early-stage and growth company ecosystems in Europe and around the globe.

Founded in Amsterdam in 2013, we now work with many of the world's most prominent investors, entrepreneurs and government organizations to provide transparency. Dealroom.co is a global intelligence platform for discovering and tracking the most promising companies, technologies and ecosystems. Clients include many of the world's foremost organizations such as Accel, Index Ventures, McKinsey, BCG, Deloitte, Google, AWS, Microsoft, Stripe.

Dealroom partners closely with local tech ecosystem development agencies and enablers, to create a comprehensive multi-dimensional blueprint of the tech ecosystem, including capital, talent, innovation, entrepreneurship and overall economic dynamism.

Developing drugs is becoming more difficult and costly, despite tech advancements.

Eroom's law



“the number of new drugs approved per billion U.S. dollars spent on R&D has halved roughly every 9 years since 1950, falling around 80-fold in inflation-adjusted terms.”

Including clinical trials, it now often takes **up to a decade** and **~\$2.7B to develop a new drug**, according to research by the Tufts Center for the Study of Drug Development.

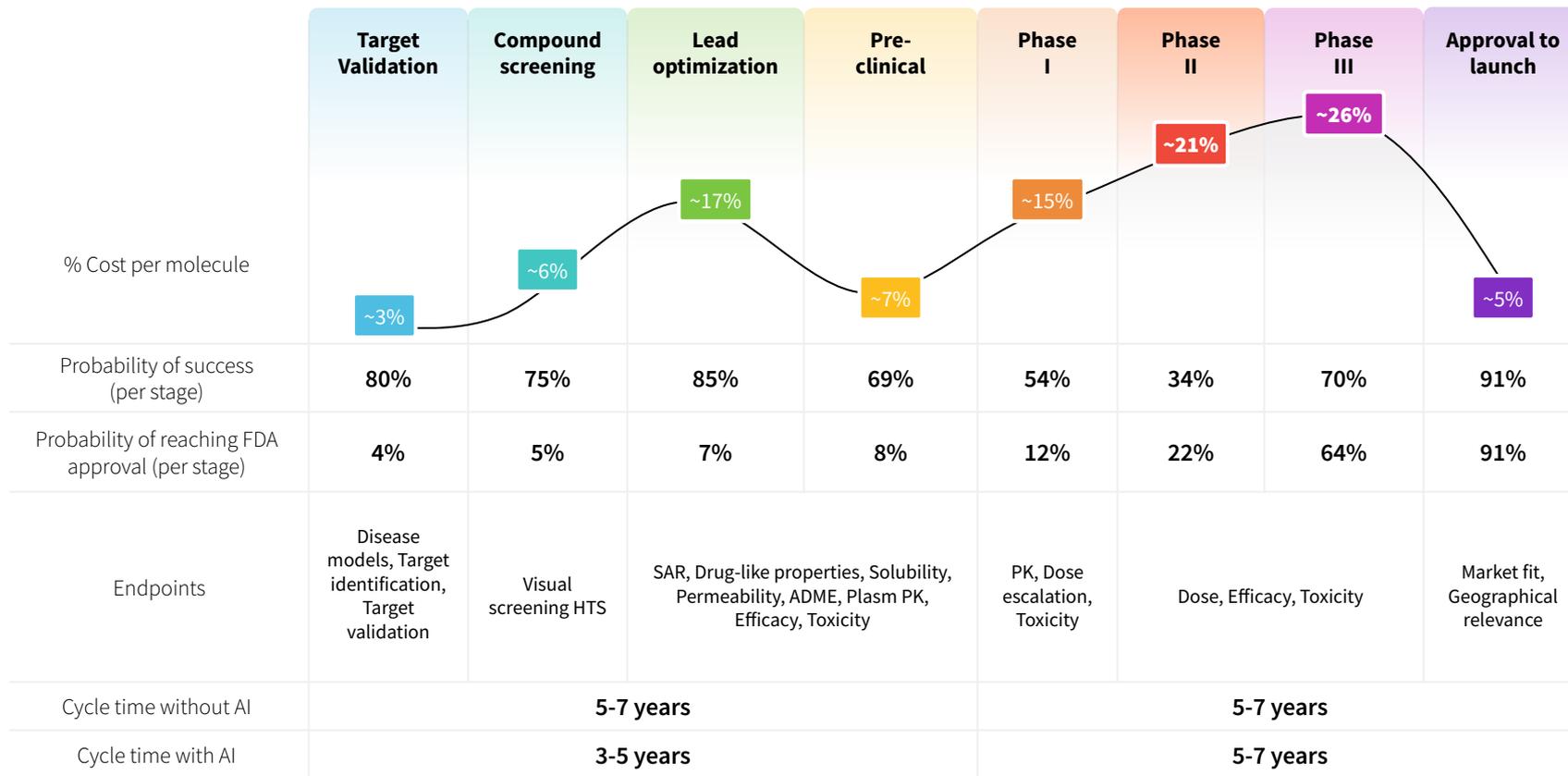
In addition, the pharma industry is fastly approaching a huge patent cliff. By 2030, patents will expire for nearly 200 drugs, and almost every major pharma company will be impacted.

190
Drugs losing patent exclusivity by 2030.
Among those drugs are **69 blockbusters.**

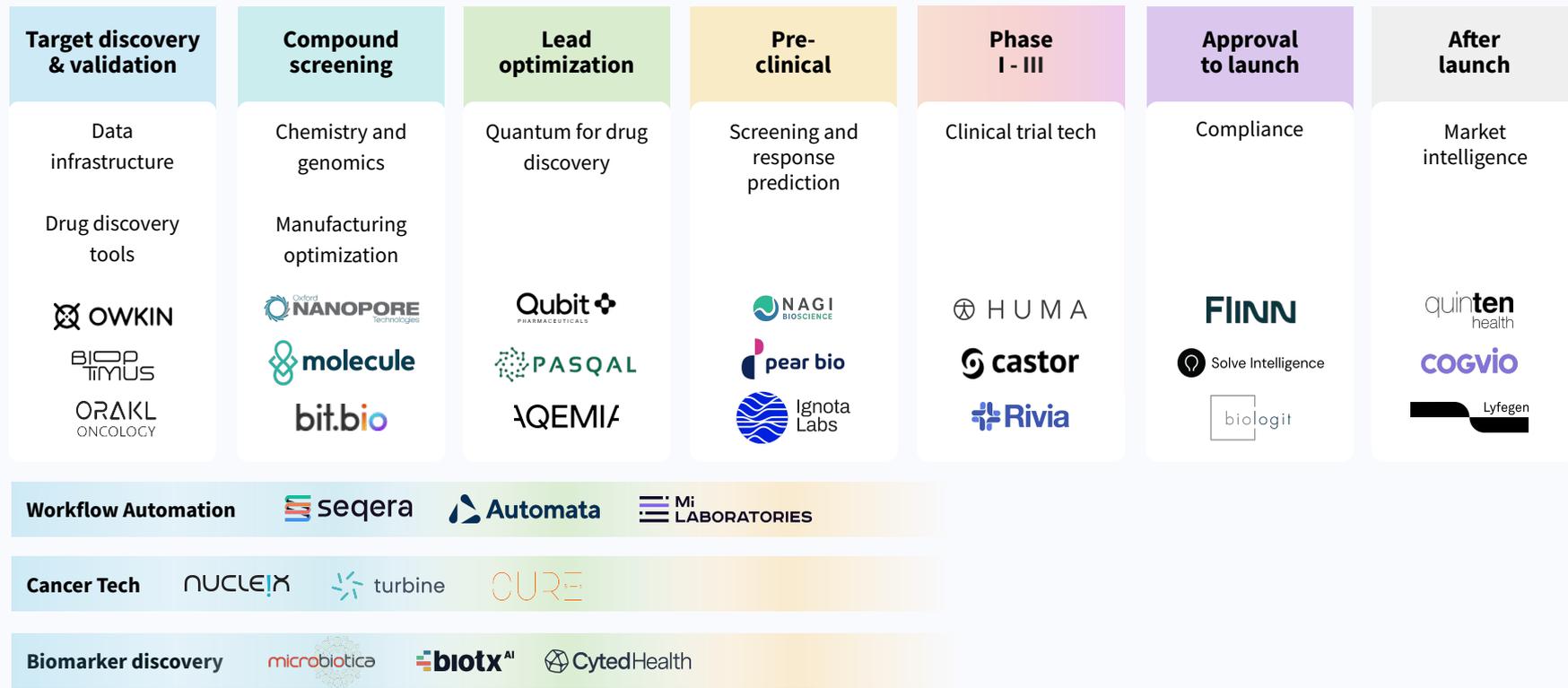
46%
Estimated **revenue declines for the world's 10 biggest pharma** companies over the next decade.

\$59B
Industry **sales at risk in 2029**, the **peak of the coming patent cliff**. All told, about **\$236 billion in pharma sales** are at risk **between now and 2030**. (for comparison pharma industry sales in 2021 were \$521B).

Most costs and time are lost in the last stages of clinical trials (Phase II, Phase III).



Techbio startups are now working on every phase of drug development, to make it faster, cheaper and more effective.

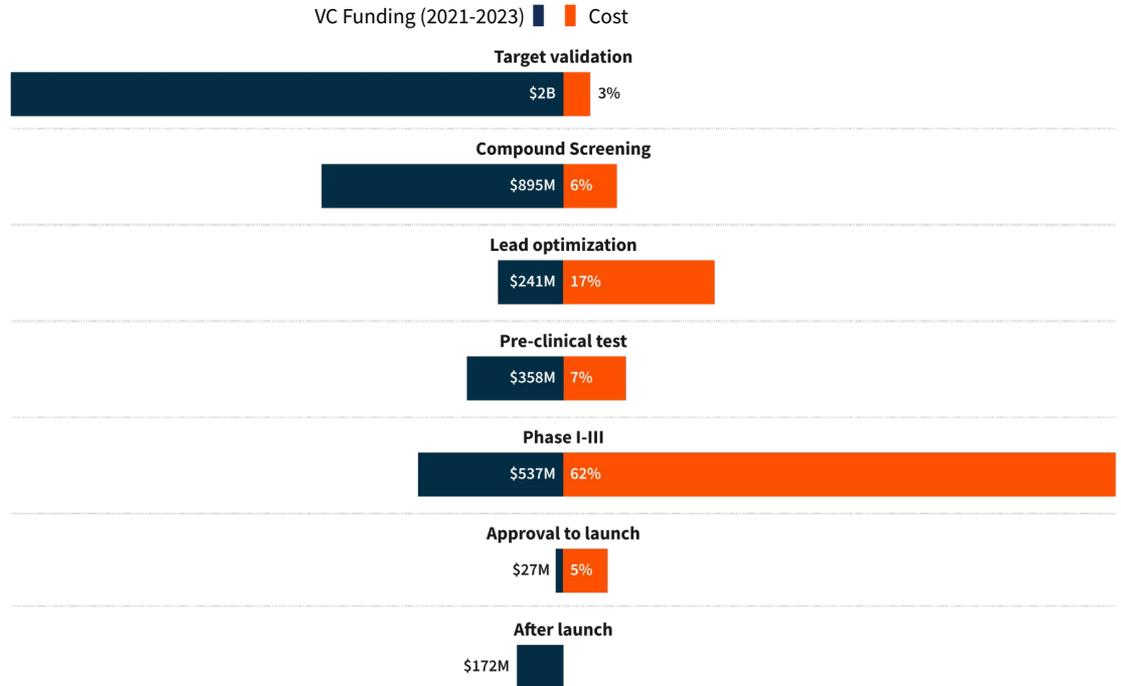


There is a negative relationship between funding amount and cost of drug development per phase.

The vast majority of investment going to the first phases of the discovery pipeline can be justified only with the belief that new AI and computational discovery platforms can improve clinical success rates.

The holy grail would be computationally and AI derived drugs with higher clinical success rate.

Drug Development phases funding x costs

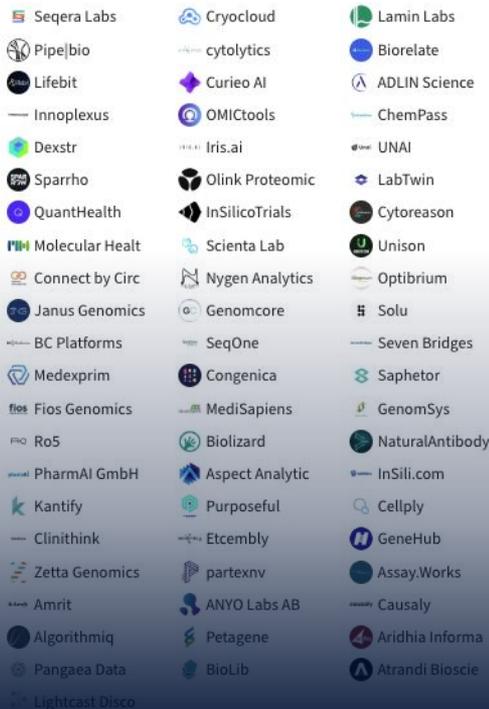


450+ Techbio x Drug Discovery startups in Europe

Explore the landscape »

Data infrastructure and experimental modeling

Combined funding \$ 637M



Compliance (Regulatory, Legal and Scientific writing)

Combined funding \$ 38M



Manufacturing optimization

Combined funding \$ 422M



Chemistry & Genomics Drug discovery

Combined funding \$ 2.1B



Clinical trial tech

Combined funding \$ 804M

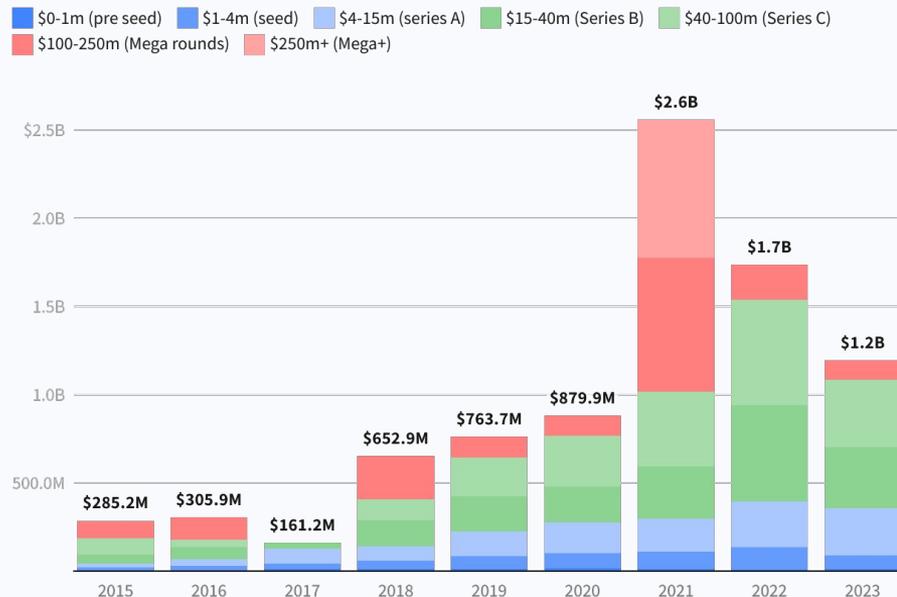


Cancer Tech

In 2021, VC investments hit \$2.4 billion, driven by late-stage rounds. While 2023 saw a decline from past record highs, investment levels remained above pre-peak periods.

VC funding in European techbio drug discovery startups

[» view online](#)

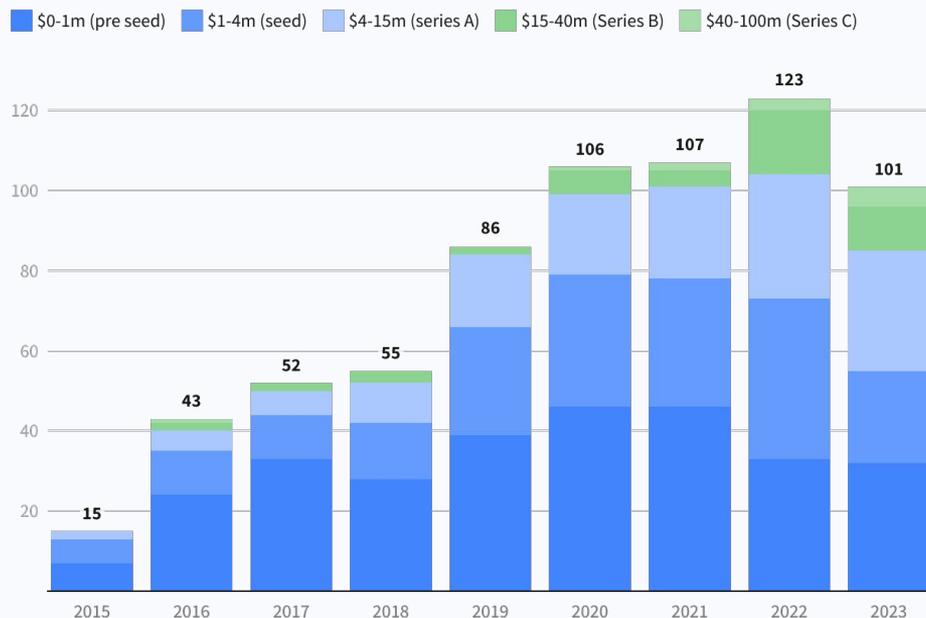


Selected rounds

Company	Amount	Round	Date	Category
Exscientia	\$525m	Series D	April 2021	Drug discovery tools
NANOPORE	£195m	Series H	May 2021	Chemistry & Genomics
OWKIN	\$180m	Growth Equity VC	Nov 2021	Drug discovery tools
PASQAL	€100m	Series B	Jan 2023	Quantum for biology
InstaDeep™	\$100m	Series B	Jan 2022	Drug discovery tools
Oribotech	\$100m	Series B	Jan 2022	Manufacturing optimization

Early-stage activity remains robust with 2023 levels matching pre-2022 peak.

Early-stage VC funding in European techbio drug discovery startups



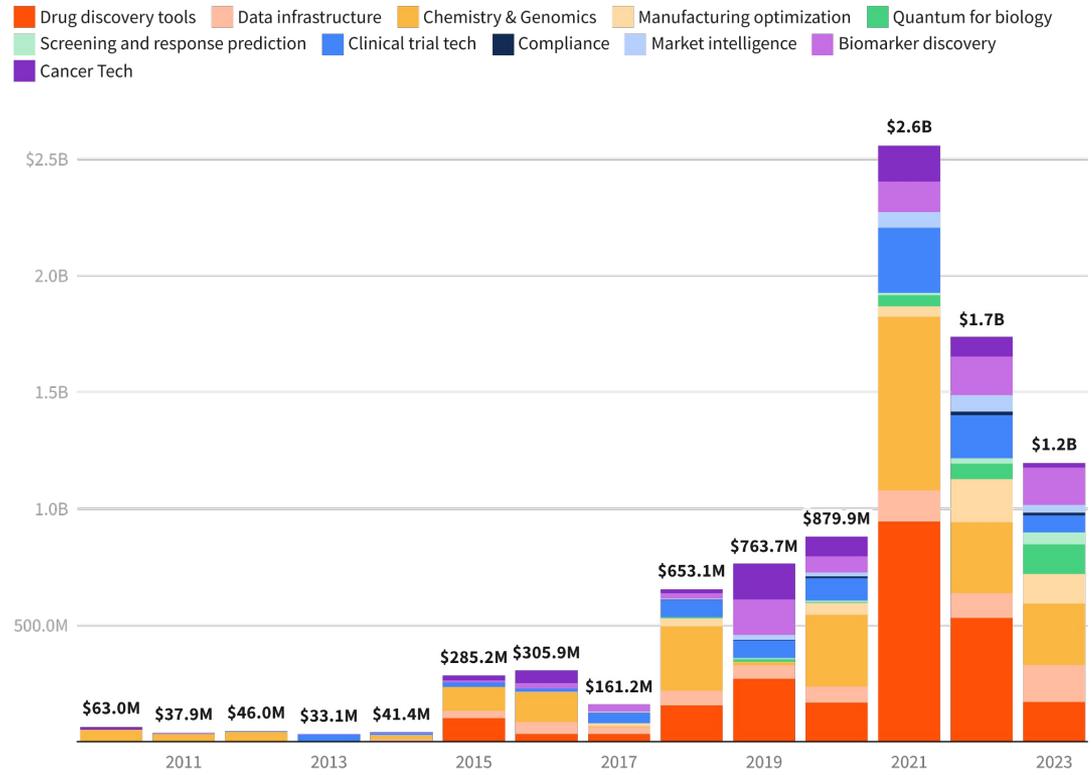
Top early-stage rounds in 2023

[» view online](#)

Veratrak	TriptoBIO	Cradle
Callyope	Evosep	Reshapebiot...
Algorithmiq	Multiomic He...	Protai Bio
CHARM Ther...	Inato	HQS Quantu...
Atrandi Bioscie	Iktos	HeartBeat.bio
Umed	BioCorteX	Mytos
Biomia	Molecular Qu...	Petagene
BrightHeart	FindMeCure	Verisian
NewBiologix		

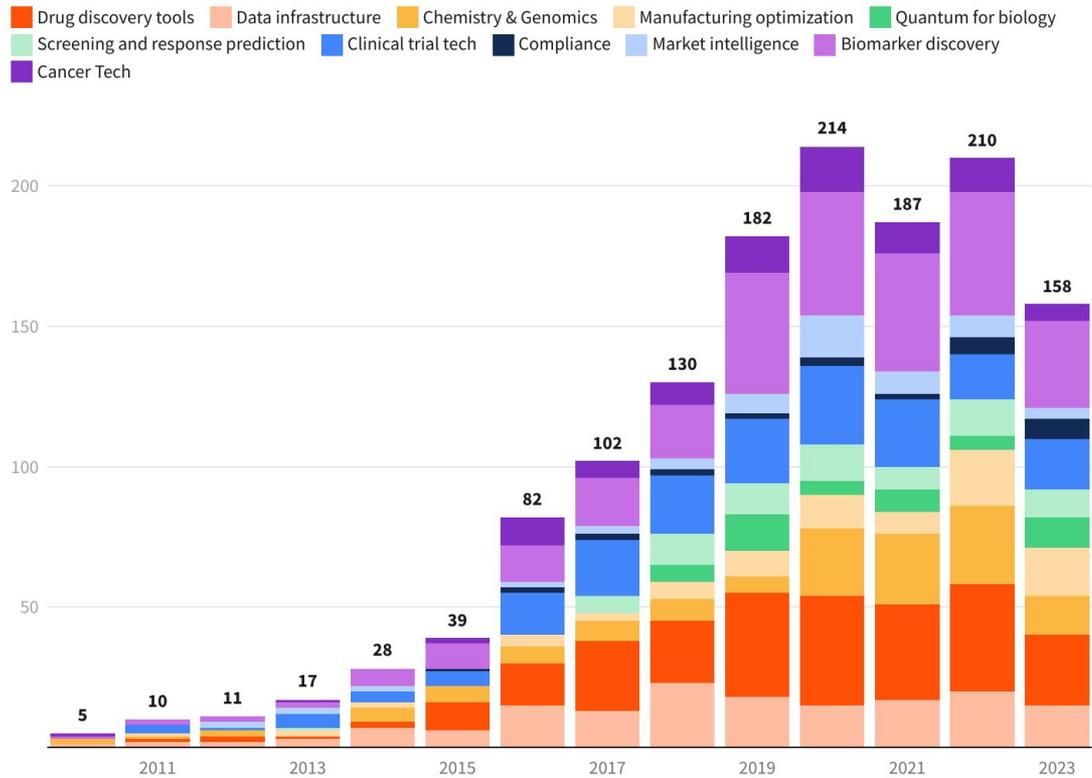
The majority of funding has historically been allocated to Drug discovery tools and Chemistry & genomics companies.

VC funding in European techbio drug discovery startups



Drug and Biomarker discovery tools companies have been securing the highest number of funding rounds.

Number of rounds in European techbio drug discovery startups

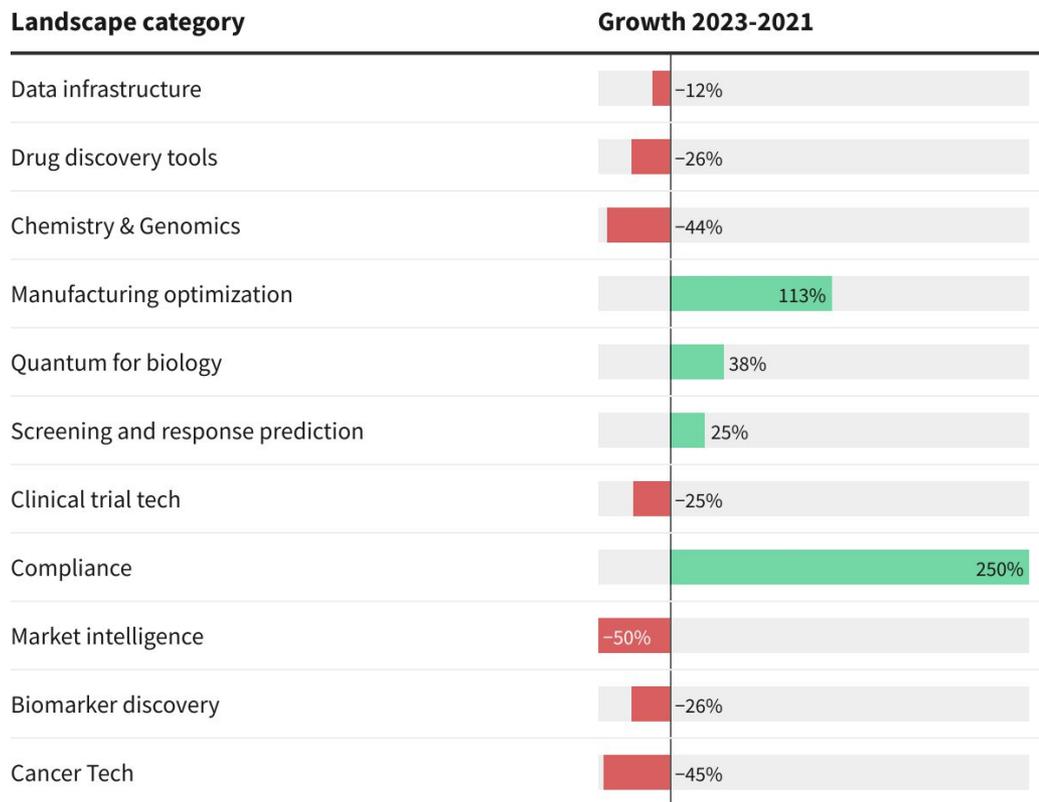


Compliance and Manufacturing optimization have been securing a significant higher amount of rounds in recent years.

However, both are small segments which make up a relatively small portion of the entire techbio drug discovery landscape.

Nonetheless, most other categories have shown decline in number of rounds, compared to the previous record high years.

Growth in number of rounds in techbio drug discovery startups



IPOs and SPACs hit a record high in 2021 but were absent in 2022-2023. In 2023, acquisitions surged.

2023 Acquisitions

Company	Amount	Acquirer	Date	Category
 Olink	\$3.1b	Thermo Fisher Scientific	Oct 2023	Data infrastructure
 InstaDeep™	£362m	BioNTech	Jan 2023	Drug discovery tools
 BIOGNOSYS	CHF 75m	Bruker	Jan 2023	Biomarker discovery
 OKRA.ai	Undisclosed	Envision Pharma Group	Feb 2023	Drug discovery tools
 formediX	Undisclosed	Certara	Oct 2023	Clinical trial tech
SevenBridges	Undisclosed	Velsera	Jan 2023	Data infrastructure

2021 IPOs and Spacs

Company	Valuation	Transaction	Date	Category
 Oxford NANOPORE Technologies	£3.4b	IPO	Oct 2021	Chemistry & Genomics
 Exscientia	\$2.9b	IPO	Oct 2021	Drug discovery tools
 Olink	\$2.4b	IPO	Mar 2021	Data infrastructure
Benevolent^{AI}	€1.5b	SPAC IPO	Dec 2021	Drug discovery tools
 ACHILLES THERAPEUTICS	\$730m	IPO	Apr 2021	Cancer Tech
EVAXION	Undisclosed	IPO	Feb 2021	Drug discovery tools

Big pharma is playing a catch-up on AI, as evidenced by their recent surge in investments, partnerships, and strategic bets in the field.

— Partnerships
— Investments



Clinical trials costs have been risings fast and success rates are improving.

The costs associated with clinical trials are on a notable rise, estimates show that **global spending on clinical trials could reach \$68.9 billion by 2025.**

The success rate of oncology clinical trials stands at 3.4%, markedly lower than the 33.4% success rate for vaccine trials, highlighting the variability in drug development success across therapeutic areas. However, the **overall drug development success rate improved to 10.8% in 2023** from a 5.9% low in 2022, driven by better outcomes in phase I and III trials and during regulatory reviews.

Enhancing trial efficiency or success rates could significantly save time and money in drug discovery, emphasizing the importance of strategic improvements in the field.

Phase I

small number of healthy volunteers (100 or less) are tested for the first time

Phase II

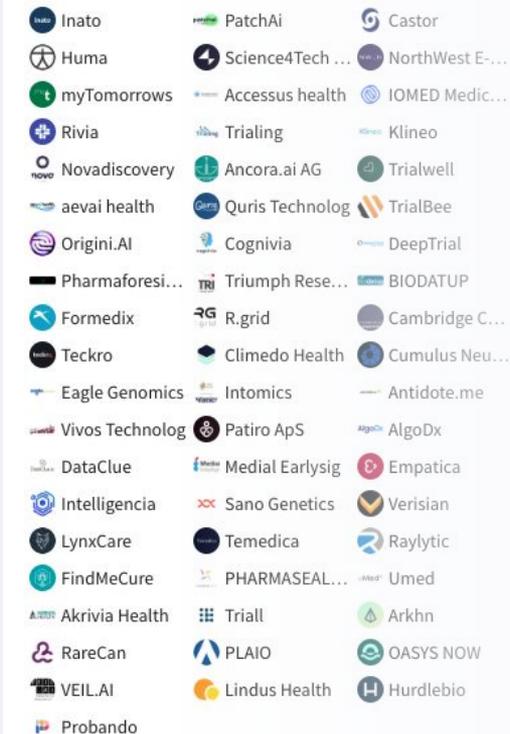
volunteers (100 to 500) with the disease under study

Phase III

demonstrate safety and efficacy (1,000 to 5,000 patients)

Explore 50+ Clinical Trials startups

[» view online](#)





Daria Gherghelas
Associate



“Regulatory changes such as MDR add a new level of complexity to compliance.”

Current processes are manual and prone to errors, driving up the costs of bringing and keeping medical devices on the market. We recognize the need for software to digitize and automate medical compliance processes across the entire product lifecycle.”

*Compliance & Market Intelligence startups have attracted just **3%** of the total techbio drug discovery VC funding across the past 5 years.*

*Nonetheless these segments are promising. Compliance has notably seen a **250% surge in number of rounds** since 2021.*

Explore 30 Compliance & Market Intelligence startups » [view online](#)

Market intelligence
Combined funding \$ 213M

Cisiv	Zageno	uMotif
Vitaccess	Semalytix	mama health...
Lyfegen	Elysium	Longgenesis
XO Life	Quinten Health	PeakData
Digipharm LTD	Promptly He...	Oncochain
Cogvio	Apheris AI	

Compliance
Combined funding \$ 39M

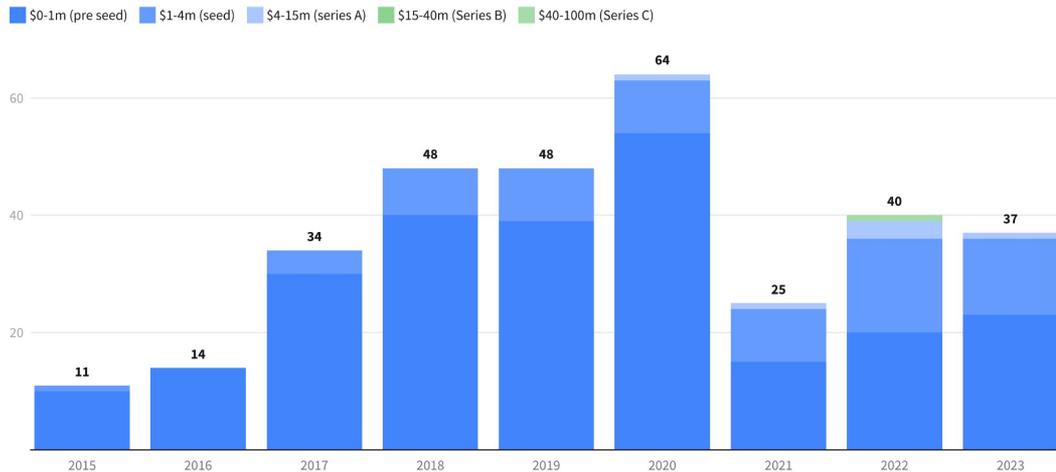
DrugCards	Flinn	CCX
Solve Intelligence	AVAYL	Oxford Brain Di
DeSci Labs	Deciphex	Biologit
Virtual Science	Certivity	Biolevate

Top TechBio x Drug Discovery investors.

Investor	Country	Stage	TechBio investments	Investor	Country	Stage	TechBio investments
 Amadeus Capital Partners	UK	Seed, Series A+	Oxford Nanopore, Congenica, Quibim	 APEX VENTURES	Austria	Seed	Cardiatec, Celeris Therapeutics, Quibim
Hummingbird	EU/US	Seed, Series A+	Bioptimus, Automata, Latch Bio	 Sofinnova partners	France	Seed, Series A+	Bioptimus, Mnemo Therapeutics, Cure51
 BLUE YARD	Germany	Seed	Sensible Biotechnologies, Chemify, Bit bio	 NINA CAPITAL	Spain	Seed	CryoCloud, Zetta Genomics, Biolib
 A-C	Germany	Seed	Seqera Labs, Biomia, Cradle	 Seedcamp	UK	Seed	Verisian, Lindus Health, Sano Genetics
 SI Speedinvest	EU	Pre-seed, Seed	Seqera Labs, Orakl Oncology, MiLaboratories	 Kurma Partners	France	Seed	Bioserenity, Radium, Arkhn
hoxton ventures	UK	Seed	BiocorteX, Baseimmune, Biotx AI	 MMC ventures	UK	Seed	Sano Genetics, MultiOmic Health
octopus ventures	UK	Seed, Series A+	Pear Bio, OriBiotech, Antidote.me	 BACKED	UK	Seed	Ochre Bio, LabGenius, Molecule
 VERVE VENTURES	EU	Seed	Orakl Oncology, MultiOmic, CellVoyant	 HCVC	EU/US	Seed, Series A+	Orakl Oncology, Sarcura, Automata
 elaia	France	Seed, Series A	Aqemia, Zymvol, Gleamer	 SquareOne	Germany	Seed	Synteny, Flinn

Techbio drug discovery startups also received 150+ grants since 2018, mainly led by Innovate UK, EIT Health and EIC.

Number of Grants to techbio drug discovery startups



Top Grant funders



“The longstanding issue of high costs in drug development, coupled with inefficient clinical trials and soaring failure rates, has persisted and worsened over time.”

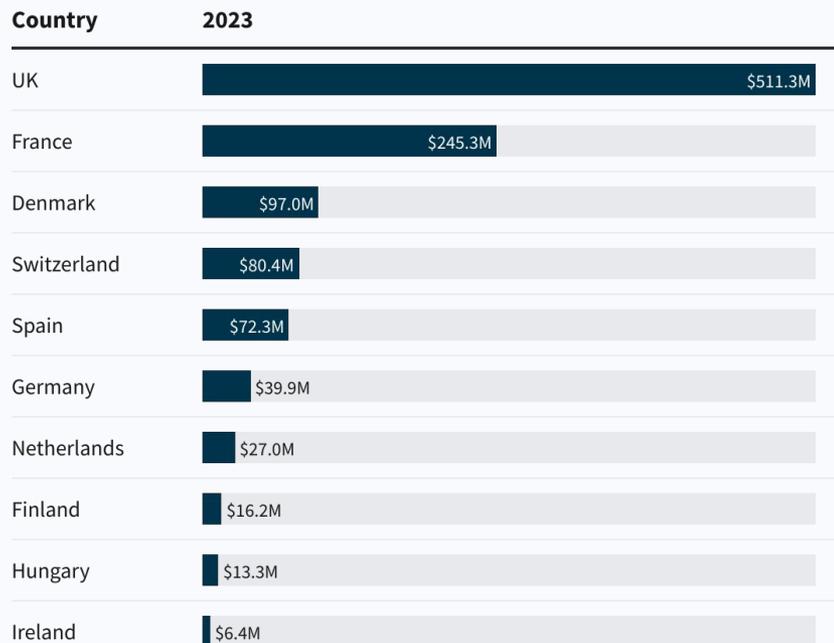
In today's landscape, where drug development is increasingly challenging and costly, the urgency to leverage technological advancements in this process has never been more apparent. Investing in tech-enabled drug discovery startups transcends mere innovation; it represents a pivotal opportunity to revolutionize healthcare, paving the way for more effective treatments and reshaping the entire industry.

Celia Pita Compostizo
Head of Market Intelligence



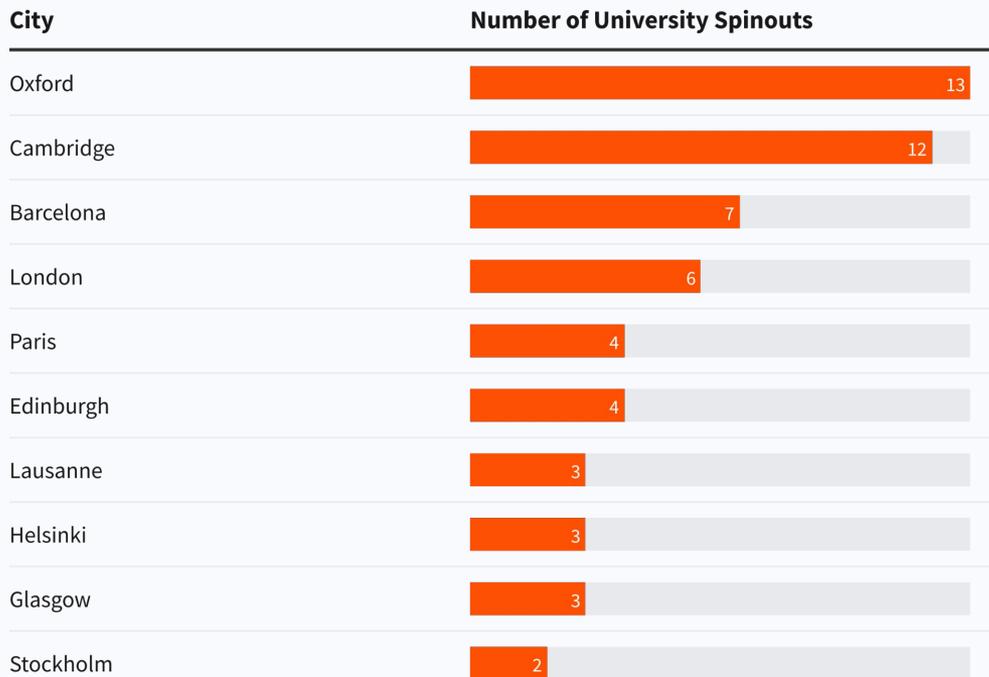
The UK attracts more than the rest of Europe combined. France notably follows.

Top European countries in techbio drug discovery by VC funding



Several leading startups in drug discovery are University Spinouts. In Europe, techbio spinouts predominantly stem from Oxford and Cambridge.

Top 10 techbio drug discovery University spinout hubs*



NAME	DEALROOM SIGNAL	MARKET	TYPE	GROWTH 12 months growth	LAUNCH DATE	VALUATION
Olink Proteomics Develops ground-breaking technol...	-	B2B health biotechnology	deep tech commission manufacturing	12%	Jan 2024	\$1.05
Oxford Nanopore Technologies Developing a new generation of na...	55	B2B health biotechnology	machine learning artificial intelligence big data deep tech nanotech	25%	Mar 2005	\$1.05
OMass Therapeutics A drug discovery company exploi...	72	B2B health biotechnology	deep tech commission manufacturing	31%	Feb 2016	\$490m
Exciscientia Scaling artificial intelligence and...	52	B2B health pharmaceutical	big data deep tech machine learning nanotech artificial intelligence	6%	Jul 2012	\$390m
Healix Healix is an AI-powered and patien...	60	B2B health biotechnology	deep learning deep tech machine learning artificial intelligence	-56%	Apr 2014	\$204-300m
Orion Biosciences Pioneering technological innovat...	38	B2B health pharmaceutical biotechnology	deep tech machine learning artificial intelligence commission manufacturing	6%	Sep 2015	\$220-300m
Congenica Clinical genomics analytics platform	75	B2B, B2C health enterprise software health software biotechnology	deep tech artificial intelligence subscription SaaS	6%	2014	\$200-300m
Chemify Digitising Chemistry and Chemi...	62	B2B health enterprise software biotechnology pharmaceutical	artificial intelligence deep tech hardware selling own inventory manufacturing	113%	Feb 2019	\$150-200m
Genomics United Kingdom-based genomic d...	51	health biotechnology	deep tech artificial intelligence machine learning manufacturing data	6%	Jan 2014	\$165-271m

» Explore 100+ techbio drug discovery university spinouts



***“Very exciting opportunities are poised to be opened within the spatial transcriptomics, organ-on-the-chip models, and AI-enhanced simulations with these techniques.*”**

This will be a game-changer and give, for the first time, an unexampled insight into the mechanisms of diseases and cellular interactions. It is more than new tools; it redefines the way diseases are understood and how care is provided to patients. This is not just about new tools but a whole new way of championing the potential for these technologies to wholly transform our field."

Namshik Han

Group Leader & Head of
AI Research

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