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MedNous Editorial Board

Editorial

Will AI kill jobs in pharma?

One of the questions making the rounds in journalism circles lately has been how the unusually fast deployment of artificial intelligence across industries will have an impact on employment. This applies to all industries but especially to data-reliant companies in the pharma and biotech sectors. It is widely acknowledged that the deployment of AI could have profound consequences for the research and development of new drugs. But will it kill jobs? This was a question posed to Pascal Soriot, the chief executive of AstraZeneca, during a press conference on 27 July following the release of the company's second quarter financial results.

Mr Soriot's answer was direct. The idea that AI deployment will kill jobs is 'a fake story,' he said. Rather, AI is a resource for potentially more efficient working. This is possible if a company has enough business to shift people into new positions as the technology advances, making older working patterns unnecessary. This is the case for AstraZeneca, he said, which has 183 projects in its pipeline and a global workforce of around 90,000.

Aradhana Sarin, the chief financial officer, explained the strategy this way. The first step, she said, is to make sure that the "right tools go to the right people." The second is to improve clinical trial design. This is essential in moving towards the later stages of clinical development. And it is a complex process. The company already uses multimodal data to improve trial design with a view to helping predict trial outcomes. This may be upgraded by integrating AI tools into the process. Having said this, there is no tool that can completely predict the behaviour of biology, Mr Soriot added.

On page 27 of this issue, we published an article by Marco Ravot-Licheri, head of digital-life sciences at Tecan Group AG, a contract development and manufacturing organisation, in Switzerland. Mr Ravot-Licheri completed a Master of Science in biomedical engineering at Imperial College London, UK, and was managing director of a digital consulting company before joining Tecan.

The article is important for readers who do not work in a laboratory but want to know more, and for those who are experienced lab workers and want to better understand the implications of AI deployment in the laboratory setting. Here is one of Mr Ravot-Licheri's observations:

"Understanding why an experiment failed even though the protocol was followed, continually checking whether every parameter remained within its optimal operating range, or repeating experiments because of mysterious errors. These activities are necessary, but they consume time and attention that scientists could otherwise devote to higher-value work. This is where agentic AI can already make a measurable difference," Mr Ravot-Licheri writes.

To understand why, please turn to page 27 of this issue of *MedNous*.

– Victoria English, 30 July 2026

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	Licensor/Vendor		Licensee/Acquirer	Deal or Acquisition	Comment	Date
CH	PolyPeptide Group AG	KR	Samsung Biologics Co Ltd	Acquisition of contract research company	Deal value is CHF 1.46b ($1.78b)	Jul-26
UK	Myricx Pharma Ltd	CH	Novartis	Acquisition of company with preclinical ADC assets	F=$1.1b + M=up to $400m	Jul-26
US	Forte Biosciences Inc	NL	argenx SE	Acquisition of company with antibody for autoimmune diseases	Deal value is $2.2b	Jul-26
US	Crinetics Pharmaceuticals Inc	US	Vertex Pharmaceuticals Inc	Acquisition of company with products for endocrine disorders	Deal value is $10b	Jul-26
US	AtaiBeckley Inc	US	Eli Lilly and Co	Acquisition of company with psychedelic compounds	F=$2.8b + M=up to $1b	Jul-26
CH	Memo Therapeutics AG	FR	Ipsen SA	Acquisition of company with product to protect kidney transplants	Deal value is up to €700m	Jul-26
UK	Mission Therapeutics Ltd	AU	Dimerix Ltd	Divest asset for treatment of acute kidney injury	Deal value is $292m	Jul-26
DE	Primed Group GmbH	UK	Inflexion Private Equity Partners LLP	Acquisition of company with medical consumables	Deal value not disclosed	Jul-26
N/A	Not disclosed	CH	Lonza Group AG	Rights to 2 biologics programmes with option for 2 more	Expansion of existing partnership	Jul-26
CH	Lonza Group AG	UK	Engitix Ltd	Access to platform for ADC linker-payload development	Undisclosed F + M + R payments	Jul-26
SE	AlzeCure Pharma AB	DK	QuantumCell ApS	Rights to Alzheimer's platform NeuroRestore	Deal value, excluding royalties is $2.2b	Jul-26
UK	Astex Therapeutics Ltd	US	Genentech (Roche Group)	Rights to compounds for breast cancer	F=$25m + M=up to $490m + R	Jul-26
SE	Mavatar AB	ES	Clinica Universidad de Navarra	Use transcriptomics to validate biomarkers for cancer	Focus is on acute myeloid leukaemia	Jul-26
IN	OneSource Specialty Pharma Ltd	DE	Formycon AG	Manufacturing partnership for biosimilars	Buyer has 3 biosimilars on the market	Jul-26
FI	Avenue Biosciences Oy	NO	Circio Holding ASA	Enhance protein secretion for gene therapy	Target is AAV gene therapy	Jul-26
CN	Dizal Pharmaceutical Co Ltd	UK	AstraZeneca Plc	Rights to Zegfrovy for lung cancer with EGFR exon 20 insertion mutations	F=$600m + M=up to $900m	Jul-26
US	BioLife Solutions Inc	US	Repligen Corp	Acquisition of company with tools for cell and gene therapy market	Deal value is $1.5b	Jul-26
US	Sanmirna Therapeutics Inc	UK	Thalia Therapeutics Plc	Acquisition of company with RNA assets	F=£3.675m + M=up to £13m	Jun-26
FR	Oddifact SAS	PL	Mabion SA	Advance antibody as treatment for rare diseases	Reposition former biosimilar candidate	Jun-26
US	Kartos Therapeutics Inc	FR	Ipsen SA	Acquisition of company with myelofibrosis asset	F=$450m + M=up $1.3b	Jun-26
FR	FFCD cancer research organisation	FR	Bioptimus SAS	Access to European data from GI cancer patients	Build AI biology model	Jun-26
CH	Lonza Group AG	US	InduPro Inc	Rights to ADC payload technologies + bioconjugation platforms	Candidate ADCs to target 2 oncology antigens	Jun-26

(F) front-end fee (M) milestone payments (A) research funding (L) licensing fees (R) royalties on net sales (E) equity investment, CEPI=Coalition for Epidemic Preparedness Innovations

Interview: Mobilising capital in Europe

The Draghi report, *The Future of European Competitiveness*, has become a benchmark for public discussions about the trajectory of the European economy and its leading industries including biotechnology. Mario Draghi, a former prime minister of Italy and European Central Bank president, identified structural weaknesses in the European economy that need to be addressed, primarily by removing barriers to trade and investment across the single market. The report was published on 9 September 2024.

Now, almost two years later, multiple reforms have been put forward by the European Commission, including a proposal to create a new legal framework, the 28th regime, for start-up companies to register and grow across Europe. This harmonised framework would exist in parallel to national company laws and theoretically enable small biotech companies to raise more capital more quickly. But is this enough?

Apparently not, according to a group of venture capital investors and research organisations which recently created a coalition to push forward the financing agenda. Called the European Life Sciences Coalition (ELSC), the group operates under Invest Europe, one of the world's largest associations of private capital providers. Among the ELSC's founding members are Sofinnova Partners, Novo Holdings, Forbion and Andera Partners. The corporate members include some of Europe's most successful biotechs, such as argenx SE, as well as research institutes.

At a meeting on 25 June at Forbion's headquarters in the Netherlands, the coalition identified some of the core problems and discussed a way forward. To put it bluntly, European life sciences venture capital accounts for just 7% of the global market, compared with 63% for the US. Furthermore, 66 of the 67 European biotech companies that went public over the past six years chose to list outside Europe, according to Andera.

"We are deeply convinced that supporting and developing world-class medical innovations is possible in Europe. What the ELSC is seeking to strengthen is the financial ecosystem that will allow hundreds of additional companies to follow that path, delivering new medications and devices to patients and their doctors," Olivier Litzka, partner at Andera, said after the meeting.

In an interview, Cedric Moreau, a partner at Sofinnova Partners and chair of the oversight committee of the ELSC, outlined some of the coalition's ambitions, making it clear that working with the public sector is important especially in light of upcoming legislation. Currently under review is a proposal from the European Commission to update legislation governing the biotech sector. The *Biotech Act* would simplify rules for clinical trials as well as revise current legislation for supplementary protection certificates, a form of intellectual property protection.

"The Commission has set up a strategy for the life science sector as a whole to position healthcare as one of the top competitive sectors where Europe wants to invest," Mr Moreau said. There is debate within the industry about some specific features of the proposed legislation, but overall the direction is positive. A key issue is clinical trial regulation. There is a need for "simpler and faster clinical trial pathways," he said.

The private sector enters the picture when it comes to building the capital resources. Mr Moreau cited a programme in France, led by the economist Philippe Tibi, that could be a model for Europe. The programme, in three phases, is focused on channelling private savings into the technology sector. The most recent phase, launched on 19 June, is intended to support sectors with strategic importance, such as defence.

Why could this be a model for Europe? "Tibi is a useful reference point because of how it works, not just how much [money] it raised. It doesn't create a new public spending pool. It persuades insurers, pension funds and increasingly state-linked institutions to commit part of their own portfolios to eligible venture and growth funds through a voluntary charter, with the French Treasury setting the qualifying criteria. That's precisely the logic ELSC is pushing for at EU level, mobilising pension, insurance and institutional capital into European venture funds, and building stronger public-private investment mechanisms, rather than asking tax payers to underwrite new spending," he said.

The concept of building stronger public-private investment mechanisms is already underway. In October 2025, the European institutions, working with private investors, drafted plans for a Scaleup Europe Fund to invest in promising European companies. On 18 May 2026, the EU team selected the private equity group EQT of Sweden to manage the fund which has assets of €5 billion. The fund is expected to make its first investments in the autumn of this year.

What about plans for a consolidated share market across Europe? The Draghi report specifically mentions the need for an integrated capital market for Europe. Currently the EU is home to more than 30 national and regional stock exchanges, each with its own regulations. Talks amongst political leaders are underway. In late May, Germany reportedly lifted its opposition to centralising supervision of a unified capital market, which would effectively mean ceding powers from the German regulator to the European Securities and Markets Authority in Paris.

In the interview, Mr Moreau said the level of political alignment required to execute on the capital markets ambition will take time. "In the near term, ELSC is focused on the wins that don't require full market consolidation: mobilising pension, insurance, and institutional capital into European venture funds, building stronger public-private investment mechanisms, and pushing for a genuine savings and investment union that channels long-term savings into European innovation. Those are the levers we can move faster, and they build the company base [that] a consolidated European marketplace for life sciences would eventually need, alongside the regulatory reforms and incentives that would make it attractive for growth companies to scale up, list, and stay headquartered in Europe," he said.

The article is based on an interview and research by the *MedNous* editor

Vaccine Strategy: Ab Osterhaus

A new route to pandemic preparedness

In late June, the international medical journal *Vaccines* published Phase 1 clinical data about a new vaccine platform that is being positioned as a technology to prepare for future pandemics[1]. The platform is being developed by AdJane Holding BV of the Netherlands and is based on 30 years of government funded research with the goal of discovering whether mucosal immunity – where the body's own antibodies neutralise pathogens before they enter tissues – has potential as a more widely exploited future vaccination strategy.

The study, carried out in 40 healthy adults, paired the company's native outer membrane vesicle (nOMV) platform with a SARS-CoV-2 spike protein – a structural component of the virus that caused the COVID-19 pandemic. It was delivered via a mucosa targeting platform, where delivery is through the body's mucous membranes, rather than by injection. The results showed that the vaccine is safe and well tolerated and produced a dose-dependent systemic and mucosal immune response. This included generating virus neutralising antibodies and a virus specific immunoglobulin A (IgA) response at the nasal mucosa. This is the entry point for most respiratory pathogens. The study was among the first published human readouts for an OMV vaccine given by this route.

OMVs are naturally occurring, nano-sized particles released by Gram-negative bacteria at times of stress. They may regulate a host immune response by activating the innate immune system or contribute to the resistance of bacteria to antibiotics. The technology was first observed on electron microscopy in the 1960s. Two decades later, it was used to develop outbreak-control vaccines against serogroup B meningococcal disease, including Cuba's VA-MENGOC-BC and Norway's MenBvac in the 1980s and 1990s. An OMV component was later incorporated into Bexsero, developed by GSK Plc to prevent serogroup B meningococcal disease more broadly. The US Food and Drug Administration approved Bexsero in 2015 and in 2024, it updated the dosing schedule. Most recently, on 20 July, GSK asked to have the dosing schedule also updated in Europe.

The pandemic challenge

For decades, global health authorities have talked about the importance of platform diversity in the context of pandemic preparedness. The severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) outbreaks highlighted the same weaknesses in the global healthcare response twice – a decade apart.

SARS spread in Hong Kong and through hospital wards in Toronto, Canada in 2002–2003 before any vaccine platform was ready. The outbreak was eventually contained by non-pharmaceutical intervention measures. This prompted the World Health Organization to rewrite the International Health Regulations in 2005 and force faster outbreak reporting.

A decade later, a single traveller returning from Saudi Arabia to South Korea in 2015 and infected with MERS coronavirus caused the start of an outbreak affecting roughly 180 cases, mainly through hospital transmission. This was a sign that the lessons from SARS had not been fully learned. The 2009 H1N1 influenza pandemic underscored a different vulnerability: vaccine manufacturing couldn't scale fast enough to deliver the required products. In this latter scenario, wealthy countries bought up limited early supply, and because the virus caused a milder disease than expected, preparedness funding lapsed once the crisis passed.

COVID-19 repeated these limited preparedness patterns with much more severe consequences, contributing to an estimated 15 to 20 million deaths globally. Some lessons did stick: the speed of the messenger RNA vaccine development owed a great deal to US National Institutes of Health-funded structural vaccinology work on stabilised spike proteins that began after MERS. But one important gap was visible as early as SARS and never closed: none of the major platforms used efficiently delivered mucosal immunity. This is a potential first line of defence at a point where respiratory viruses enter the human body.

Pandemic preparedness plans drawn up in ordinary times are familiar to those who work in public health and vaccinology. They include securing hospital capacity, early warning systems, pathogen discovery platforms, linked diagnostic and clinical trial infrastructure, and biosafety level 3 facilities. These are among the non-pharmaceutical interventions that are available before pathogen-specific tools exist. But though the playbook is familiar, the tools are far from failsafe to face a major pandemic.

Among the frontline pharmaceutical tools, targeted vaccines and antivirals remain the most effective way to limit severe disease, transmission, and broader disruption. But because universal vaccines against pandemic-potential virus families don't yet exist, new vaccines must be developed fast once a pathogen is identified. This is why, during Covid-19, the platforms that succeeded best were the modular ones. They included mRNA, viral vector, and recombinant protein based vaccines which let developers swap in a new target antigen rather than start from scratch. This 'plug-and-play' approach helped when SARS-CoV-2 itself began to mutate during the recent pandemic.

What none of these platforms solved however was the efficient induction of mucosal immunity. Injectable vaccines struggle to generate strong immunity at the nasal and airway surfaces where respiratory viruses first take hold. This is a response that can help prevent or stop the infection at an early stage, forestalling severe disease and probably reducing virus transmission. Currently, several initiatives are aimed at developing candidate pandemic vaccines that also induce mucosal immunity. These include mRNA, viral vector, and adjuvanted recombinant protein vaccines. In their current forms however, they are poorly

suited to intranasal delivery without major reformulation or unacceptable local reactogenicity. This leaves a hole in the pandemic preparedness toolkit which, during the Covid-19 pandemic, was clearly identified as an important point to consider.

As discussed earlier, an OMV component became part of GSK's licensed Bexsero vaccine. OMVs carry outer membrane proteins, lipopolysaccharide (LPS), and lipoproteins in their native conformation, closely resembling what the immune system meets during a real infection. That makes them inherently immunogenic and self-adjuvanting. Their pathogen-associated molecular patterns (PAMPs) activate immune responses without needing a separate adjuvant, and their small particulate size (20–300 nm) contributes to uptake by mucosal antigen-presenting cells and secretory IgA production, the antibody class that neutralises pathogens right at the point of entry.

What the initial OMV vaccines couldn't do was scale up beyond the strain from which they came. Protection was driven largely by strain-specific surface proteins, so a vaccine built from one outbreak strain offered little protection against another. This is useful for controlling a local epidemic, but less helpful as a general-purpose platform.

Three further challenges compounded this. Native LPS is potent enough to cause real local and systemic reactions at the doses needed for good immunogenicity; wild-type bacteria shed usable vesicles too inefficiently to manufacture at scale; and attaching a foreign antigen to the vesicle surface tends to either destabilise the vesicle or blunt the PAMP activity that makes OMVs self-adjuvanting in the first place. The four interconnected barriers of reactogenicity, yield, strain specificity, and antigen display, hold back a platform with a long history and clinical track record, from becoming a general epidemic- and pandemic-response technology.

What AdJane's technology has done is to fill a gap in the pandemic preparedness toolkit: induction of mucosal immunity. In the words of the company's chief executive, Anita Gashi, it has addressed the historical barriers to broader OMV use which include reactogenicity, yield, strain specificity, and manufacturability, to potentially bring the technology to bear across a broad range of viral and bacterial threats. This enables the company to respond to global health challenges as they evolve.

The company's *Neisseria meningitidis* – native OMV backbone addresses many of the setbacks which have held back the OMV platform. It uses a genetically engineered *N. meningitidis* strain carrying four targeted gene knockouts, each aimed at one of the four historical barriers: reducing reactogenicity, improving spontaneous vesicle yield, limiting strain-specific immune interference, and supporting stable display of heterologous antigens. The data published in *Vaccines* provides the first human evidence and the first time this line of engineering has been tested against a pathogen with genuine pandemic potential rather than a single outbreak strain.

The fact that this version of the OMV platform can be given intranasally is a potential gamechanger for pandemic preparedness. This is the first time the OMV platform has been engineered to be administered mucosally in humans, providing an important differentiator against competing technologies. The possibility for using it also for seasonal vaccines against continuously mutating respiratory viruses, such as SARS-CoV-2 and influenza viruses, would offer the additional opportunity of routinely using it for seasonal vaccination of high-risk groups by using the 'plug-and-play' strategy. This could also be used directly for a pandemic vaccine, once the pandemic virus has been identified. This approach would be important from a sustainability perspective as using a platform technology for pandemic preparedness only, rather than using it routinely for seasonal vaccine production, would not be attractive or feasible from a financial point of view.

Alongside the major platforms that were used for the development of the Covid-19 vaccines, OMVs occupy a distinct segment. Current mRNA vaccines largely depend on the use of lipid nanoparticles and are poorly suited to mucosal delivery. Viral vectors lose potency with repeated dosing as anti-vector immunity builds. Conventional adjuvanted vaccines mainly drive systemic immune responses. They usually don't work intranasally at the dose range used for parenteral administration. AdJane's OMVs, by contrast, are self-adjuvanting, can be given either parenterally or intranasally allowing both mucosal and systemic immunity induction. This is a combination none of the platforms that dominated the response to the last pandemic could offer.

In April, the global non-profit partnership, CARB-X, awarded AdJane $2.6 million to advance a gonorrhoea vaccine candidate using the same native OMV backbone as in the company's candidate pandemic vaccine to address antimicrobial resistance. Taken together with the June trial data, the two programmes point to one underlying technology which could be positioned for pandemic preparedness and preventing seasonal respiratory and bacterial infections, both with an impact on the reduction of antimicrobial resistance. This breadth of application is important because pandemic preparedness increasingly depends on having several distinct platforms ready to adapt, not one dominant technology which has been scaled up 'after the horse has bolted.'

The removal of these initial stumbling blocks has enabled OMV to mature as a vaccine development platform for mucosal and parenteral application. This has enabled it to produce its first published human data against a seasonal – and pandemic-relevant – pathogen. For a platform that has spent decades solving one barrier at a time, this offers intriguing opportunities for vaccine developers.

Reference:

1. Kraan, H., van der Geest, A., Oosterhoff, D., Kruiswijk, C., et al. (2026). A Randomized, Double-Blind, Placebo-Controlled Phase I Study to Evaluate the Safety, Tolerability, and Immunogenicity of an Outer Membrane Vesicle (OMV) Platform-Based Vaccine Administered Intranasally to Healthy Adults. *Vaccines*, 14(7), 575.

This article was written by Ab Osterhaus, Emeritus Professor of Virology at Erasmus University, Rotterdam. He has several other affiliations and is a Scientific Adviser to AdJane Holding BV.

Research Strategy: Fiona Jackson

Targeting one-carbon metabolism in cancer

Despite its well-established role in cancer biology, one-carbon metabolism has long been regarded as a challenging therapeutic target. In 2017, Raze Therapeutics Inc, one of the most prominent companies pursuing this approach at the time, ceased operations after investors concluded that the underlying biology remained too difficult to translate into effective therapies[1]. In 2024, Ribon Therapeutics Inc was shuttered after pursuing enzyme-targeted therapies aimed at stress-response and metabolic vulnerabilities in cancer cells[2].

These setbacks form a small chapter of a longer story: past efforts to drug the one-carbon pathway in cancer were repeatedly limited by toxicity because they could not adequately distinguish cancer-rewired metabolism from the metabolism of healthy tissue. Daiichi Sankyo Co Ltd has developed a small molecule inhibitor targeting this pathway in cancer, though that programme remains at the preclinical stage[3]. Interest in the enzyme, methylenetetrahydrofolate dehydrogenase 2 (MTHFD2), now extends beyond oncology: Oxford-based Sitryx Therapeutics Ltd advanced an oral MTHFD2 inhibitor, SIT-047, toward first clinical entry in psoriatic arthritis in 2026, with a broader autoimmune footprint under consideration. That growing activity reflects the enzyme's fundamental role across proliferative disease. In cancer specifically, however, no company has yet translated MTHFD1/MTHFD2 inhibition into a clinical programme – the gap One-carbon Therapeutics AB hopes to close.

One-carbon enzymes are responsible for transferring single-carbon units that are essential for fundamental cellular processes, including nucleotide biosynthesis, amino acid metabolism and DNA repair. Among the most important of these enzymes are MTHFD1 and MTHFD2.

MTHFD2 (mitochondrial/nuclear) is an oncofetal protein expressed during embryonic development to support rapid cell growth, silenced in most differentiated adult tissues, and re-expressed in tumours. MTHFD1 (cytoplasmic) plays a central role in normal cellular metabolism throughout adult life and is also up regulated in malignancy. MTHFD2 is one of the most consistently up regulated proteins in cancer and is associated with significantly worse overall survival[4]. Together, the two enzymes represent one of the most compelling and well-validated metabolic dependencies in oncology – and one that has, until now, resisted successful drug development.

One-carbon Therapeutics, a clinical-stage precision oncology company and Karolinska Institutet spin-out headquartered in Solna, Sweden, was founded in 2020 to exploit this cancer-specific dependency. The company's premise is that the differentiator lies not only in *what* is targeted but also in *how* it is targeted – a granular understanding of the pathway that previous programmes lacked. Its lead programme, TH9619, is a first-in-class, potent, small-molecule inhibitor of MTHFD1 and MTHFD2. Structure-guided drug design, enabled by the identification of the target crystal structure by scientific founder Professor Thomas Helleday, delivered a breakthrough: TH9619 binds selectively in the folate pocket of both enzymes with nanomolar potency, according to the company.

The compound selectively kills cancer cells through toxic folate trapping[5]. In cancer cells, high levels of MTHFD2 drive initial release of formate from mitochondria into the cytosol, which is then coupled to tetrahydrofolate by MTHFD1 to generate 10-CHO-THF (formyl-tetrahydrofolate), an essential one-carbon donor for nucleotide biosynthesis. Inhibition of MTHFD1 by TH9619 prevents further use of 10-CHO-THF for downstream thymidylate synthesis, creating a folate trap that depletes the tetrahydrofolate required for nucleotide production. The resulting nucleotide shortage triggers replication stress and DNA damage, starving cancer cells of DNA building blocks and leading to cancer cell death[6]. Because normal cells express MTHFD2 to a lesser extent, they lack the formate overflow required to generate this trap and are therefore spared. This is the distinction that eluded earlier programmes in the space: an approach differentiated from conventional chemotherapy,

Background and Rationale

Cancer cells depend on one-carbon metabolism to sustain rapid DNA synthesis and survival. Two key enzymes in this pathway, MTHFD1 (cytoplasmic) and MTHFD2 (mitochondrial/nuclear), are highly and consistently overexpressed in solid tumours compared with normal tissues. This creates a cancer-specific dependency that TH9619 is designed to exploit with high selectivity.

MTHFD2 is one of the most overexpressed genes in cancer and consistently associated with significantly worse overall survival across multiple cancers.

TH9619 Mechanism of Action

TH9619 is a small molecule MTHFD 1/2 inhibitor (intravenous administration) that selectively kills cancer through folate trapping.

- In cancer cells, high MTHFD2 expression drives the release of formate from mitochondria into the cytosol, to generate 10-CHO-THF (formylfolate);
- Inhibition of MTHFD1 by TH9619 prevents further use of 10-CHO-THF for downstream thymidylate synthesis;
- This creates a folate trap, depleting the folate (THF) necessary for thymidylate production, resulting in nucleotide shortage, DNA damage, and cancer cell death;
- Normal cells lack MTHFD2 expression and the formate overflow needed to create this trap.

Source: Moreno, V, et al, A Phase 1/2 First-in Human Study of TH9619 in Patients With Advanced Refractory Solid Tumours, *ASCO Publications*, 27 May 2026.

which targets rapidly dividing cells indiscriminately, and from classical synthetic lethality strategies, which depend on specific genetic mutations.

In September 2025, One-carbon initiated the ODIN first-in-human Phase 1/2 study (NCT07151040) to evaluate TH9619 as a monotherapy in patients with advanced refractory solid tumours[7]. The study is designed to drive decisions on dose, indication selection and expansion. Phase 1a establishes safety and tolerability and identifies the recommended dose, with escalating intravenous doses of TH9619 starting at 500 mg/m² in 28-day cycles until disease progression or unacceptable toxicity. This flexible architecture – with expansion only where early signals justify it – is intended to reduce risk for what remains, for now, a single-asset company. Clinical results are expected to be available in 2027.

In parallel, the company has a strategic collaboration with Tempus AI Inc, a technology company leading the adoption of AI to advance precision medicine. This collaboration will utilise Tempus' analytical services to characterise the expression landscape across prioritised solid tumor indications[8]. By integrating RNA sequencing data with clinical variables, the teams aim to uncover deep molecular insights that will inform the development of TH9619.

The trial-in-progress poster (TPS3165) presented by Moreno et al. at ASCO 2026 confirmed that recruitment is underway across four academic and clinical research centres in the United Kingdom, France and Spain – the Northern Centre for Cancer Care in Newcastle; Institut Gustave Roussy in Villejuif; and, in Spain, START Madrid–FJD at Hospital Fundación Jiménez Díaz, and the Hospital Universitari Vall d'Hebron in Barcelona – with expansion to additional European sites planned in the coming months[9].

Development of the ODIN study has been supported by a group of family offices and private Swedish investors, several of whom bring backgrounds from leading European venture funds – a deliberately non-traditional early cap table that One-carbon says was chosen to build value ahead of a larger institutional round. Most recently, the company secured SEK 153 million ($16.1 million) in a funding round completed at the end of 2025.

Management is candid about the road ahead. Despite the common challenges with clinical development, particularly with first-in class compounds, the scientific opportunity is significant.

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This article was written by Fiona Jackson, a freelance science and technology writer, who is an associate at 59 North Communications in Stockholm, Sweden.

US & European Regulatory Actions					
Drug or Device	**Comment**	**Sponsor**	**Action**	**Agency**	**Date**
Evlarco (obicetrapib/ezetimibe)	Primary hypercholesterolaemia or mixed dyslipidaemia	Menarini Group	PO	EMA	Jul-26
Icotyde (icotrokinra hydrochloride)	Plaque psoriasis from 12 years of age	Janssen-Cilag (Johnson & Johnson)	PO	EMA	Jul-26
Lynavoy (linerixibat)	Cholestatic pruritus in adults with biliary cholangitis	GSK Plc	PO	EMA	Jul-26
Lyrokaul (lerodalcibep)	Primary hypercholesterolaemia or mixed dyslipidaemia	LIB Therapeutics LLC	PO	EMA	Jul-26
Nezglyal (leriglitazone)	Cerebral adrenoleukodystrophy	Minoryx Therapeutics SL	PO	EMA	Jul-26
Susvimo (ranibizumab)	Neovascular age-related macular degeneration	Roche Group	PO	EMA	Jul-26
Zokovea (ensitrelvir)	Post-exposure prophylaxis of COVID-19	Shionogi BV	PO	EMA	Jul-26
Meplyffa (arimoclomol citrate)	Niemann-Pick disease type C	Zevra Denmark A/S	NO	EMA	Jul-26
Cavoley (pegfilgrastim)	Biosimilar to reduce neutropenia in adults	CuraTeQ Biologics s.r.o	PO	EMA	Jul-26
Enhertu (trastuzumab deruxtecan)	In combination for HER2 positive breast cancer	Daiichi Sankyo Co Ltd	NI	EMA	Jul-26
Piqray (alpelisib)	Breast cancer after an endocrine-based regimen	Novartis	NI	EMA	Jul-26
Repatha (evolocumab)	Adults at risk of atherosclerotic cardiovascular disease	Amgen Inc	NI	EMA	Jul-26
Rinvoq (upadacitinib)	Juvenile idiopathic arthritis from 2 years	AbbVie Inc	NI	EMA	Jul-26
Riltrava Aerosphere (formoterol/g. bromide/budesonide)	Maintenance treatment for asthma from 12 years	AstraZeneca Plc	NI	EMA	Jul-26
Trodelvy (sacituzumab govitecan)	In combination for triple-negative breast cancer	Gilead Sciences Inc	NI	EMA	Jul-26
Casgevy (exagamglogene autotemcel)	Sickle cell disease for young children	Vertex Pharmaceuticals Inc	NI	FDA	Jul-26
Lipfendra (enlicitide)	Oral treatment for hypercholesterolaemia	Merck & Co Inc	AP	FDA	Jul-26
Tregzi (Orca-T)	Graft versus host disease prophylaxis	Orca Biosystems Inc	AP	FDA	Jul-26
Leqembi (lecanemab)	Early Alzheimer's disease, subcutaneous injection	Eisai Co Ltd	NI	FDA	Jul-26
Fabhalta (iptacopan)	Full approval for primary IgAN	Novartis	NI	FDA	Jul-26
Jideytro (zidesamtinib)	ROS1-positive non-small cell lung cancer	GSK Plc	AP	FDA	Jul-26
Simtriyo (centanafadine)	Attention-deficit hyperactivity disorder	Otsuka Pharmaceutical Co Ltd	AP	FDA	Jul-26
Lytenava (bevacizumab)	Neovascular age-related macular degeneration	Outlook Therapeutics Inc	AP	FDA	Jul-26
PRIMA (medical device)	Subretinal implant for AMD-associated geographic atrophy	Science Corp	AP	EU-CE	Jul-26

AP=approval (FDA), APL=appeal, CE mark=notified body approval (EU), EA=expanded access (FDA), CRL=complete response letter (FDA), NI=new indication (US, EU), NO=negative opinion (EMA), PO=positive opinion (EMA), SR=safety review, WD=withdrawal, MHRA=(UK regulator).

New cholesterol drug in US

The US Food and Drug Administration has approved a new oral treatment for adults with hypercholesterolaemia – a condition characterised by abnormally high levels of cholesterol which increase the risk of a heart attack or stroke. The treatment, Lipfendra (enlicitide), is a macrocyclic peptide that inhibits the enzyme PCSK9, which plays a role in cholesterol metabolism.

Until this approval, announced on 17 July, PCSK9 inhibitors were only available as injectable therapies. The goal of PCSK9 inhibitors, irrespective of delivery method, is to reduce low-density lipoprotein cholesterol (LDL-C) which is often referred to as 'bad' cholesterol.

"Cardiovascular disease remains the leading cause of death in the United States and elevated LDL cholesterol is one of its most important modifiable risk factors," said Michael Davis, acting director of the FDA's Center for Drug Evaluation and Research, in a prepared statement.

While several classes of drugs are available to lower LDL-C, including injectible PCSK9 inhibitors, statins, and ezetimibe, a cholesterol absorption inhibitor, Lipfendra stands apart for its oral delivery, the agency said.

The drug's safety and efficacy were established in two double-blind, placebo-controlled trials involving 3,207 adults with hypercholesterolaemia including patients with and without a genetic form of the disorder. In the first trial, the treatment resulted in a 56% reduction in LDL-C, and in the second, the average reduction was 59%. Lipfendra was developed by Merck Sharp & Dohme LLC (Merck & Co).

CE mark for retinal implant

Science Corp of the US is poised to launch a new medical device in Europe that has been shown to restore functional central vision to patients with geographic atrophy. This is caused by age-related macular degeneration, a leading cause of blindness. The device, PRIMA, is a brain-computer interface. The launch follows the award of a Conformité Européenne (CE) mark – a medical device approval – to Science Corp in Germany. Medical device regulation in the EU is decentralised. But once an approval is granted in one country, mutual recognition applies across the European Economic area which includes EU countries, Norway, Iceland and Liechtenstein.

Geographic atrophy, which is caused by age-related macular degeneration, is estimated to affect more than five million people globally. According to Science Corp and to a 2025 study in *The New England Journal of Medicine* there were no therapies available to restore vision to people with the disorder, prior to the launch of PRIMA. The system works by combining a subretinal photovoltaic implant and near-infrared light-projecting glasses to restore sight to areas of central retinal atrophy. The device was tested in an open-label, multi-centre, single-arm study. The primary endpoints were measurements of an improvement in visual acuity at 12 months. Thirty-two of 38 enrolled participants reached the endpoint at 12 months.

Casgevy for the very young

The US Food and Drug Administration has approved a new indication for Casgevy, a cell-based gene therapy for two blood disorders, making it available to individuals as young as two years. The disorders are sickle cell disease, a rare inherited blood disorder, and transfusion-dependent beta thalassaemia. Casgevy (exagamglogene autotemcel) was first approved by the FDA in 2023 for children with sickle cell disease from the age of 12 years.

"Earlier access to the transformative potential of this therapy will allow clinicians and families to consider treatment before years of cumulative damage from these life-shortening diseases take hold," Haydar Frangoul, a medical director at HCA Healthcare Inc, said in a prepared statement. The FDA approval was announced on 1 July.

Sickle cell disease is a genetic disorder caused by a mutation in the *HBB* gene which encodes a subunit of haemoglobin in red blood cells. This causes the cells to change shape and hamper the delivery of oxygen. It can lead to organ damage and other complications. Beta-thalassaemia is also caused by mutations in the *HBB* gene. Transfusion-dependent beta-thalassaemia is the most severe type where patients may require frequent blood transfusions and iron chelation therapy to remove toxic iron from the body.

Casgevy consists of a patient's own cells which are edited using the CRISPR/Cas9 tool and directed to a specific spot in DNA. The edits increase foetal haemoglobin and address the underlying cause of the disease, according to the FDA.

Casgevy was shown to be safe and effective in 11 patients with sickle cell disease and 15 patients with beta-thalassaemia. The patients were five years to less than 12 years old. This data was then extrapolated to younger patients with the result that the indication has been expanded to two years and above. Casgevy was developed by Vertex Pharmaceuticals Inc and CRISPR Therapeutics AG.

FDA approves freeze-dried plasma

The US Food and Drug Administration approved a freeze-dried plasma product on 29 July – the first product of its kind to be licensed in the US. The product is intended for transfusion in adult patients who need plasma and for whom other plasma products are not available, the agency said

The product, Ezplaz, is derived from a single unit of fresh frozen plasma collected from FDA-licensed blood establishments. It is available in Group AB and Group A with low-titer anti-B blood types which have been chosen to mitigate the risk of administering plasma to patients in emergencies before their blood type has been determined.

Unlike conventional plasma products that must be stored frozen and thawed before use, Ezplaz can be stored at room temperature, is stable after exposure to temperature fluctuations, and is rapidly reconstituted, the agency said.

In a prepared statement, Anne Eder, director of the Office of Blood Research and Review, said "this licensure demonstrates that innovation and rigorous scientific review can advance together, expanding treatment options and novel blood components... "

Initiation of US & European Clinical Trials					
Name of drug or device	**Sponsor**	**Treatment**	**Phase**	**Comment**	**Date**
MP0317 (bispecific molecule)	Molecular Partners AG	In combination for biliary tract carcinoma	2	Tumour localised CD40 agonist	Jul-26
AP306 (small molecule)	R1 Therapeutics Inc	Treat hyperphosphatemia	2b	Patients with chronic kidney disease on dialysis	Jul-26
Vididencel (cancer vaccine)	Mendus AB	Chronic myeloid leukaemia	1b	Patients have suboptimal response to kinase inhibitors	Jul-26
VLS-01 (psychedelic medicine)	AtaiBeckley Inc	Treatment-resistant depression	2b	Serotonin agonist at 5HT receptors	Jul-26
Bexicaserin (small molecule)	H. Lundbeck A/S	Developmental + epileptic encephalopathies	3	Superagonist of the 5-HT2C receptor	Jul-26
RPN-002 (small molecule)	ReproNovo SA	Embryo implantation	2	Reduce uterine contractility, maintain uterine quiescence	Jul-26
POLB 001 (oral prophylactic)	Poolbeg Pharma Plc	Prevent cytokine release syndrome	2a	Patients are taking cancer immunotherapies	Jul-26
CY-101 (peptide)	Cancer Research UK, partners	Rare adrenal gland cancer	2	Partners are Cytovation ASA, Norwegian Cancer Society	Jul-26
ZI-MA4-1 (cell therapy)	Zelluna ASA	Advanced MAGE-A4-positive solid tumours	1	T cell receptor-based natural killer cell therapies	Jul-26
ChAdOx1 BDBV (vaccine)	University of Oxford	Bundibugyo ebolavirus vaccine	1	Support from Coalition for Epidemic Preparedness Innovations (CEPI)	Jul-26
Deupirfenidone (small molecule)	Celea Therapeutics Inc	Idiopathic pulmonary fibrosis	3	Comparator in trial is pirfenidone	Jul-26
EBX-102-02 (oral, microbiome therapy)	EnteroBiotix Ltd	Irritable bowel syndrome with constipation	2b	Modulate the gut microbial ecosystem	Jul-26
MP0712 (radiopharmaceutical)	Molecular Partners + Orano Med	Small cell lung cancers + other tumours	1/2a	Targets tumour-associated protein delta-like ligand 3	Jul-26
Mitazalimab (monoclonal antibody)	Alligator Bioscience AB	Early-stage breast cancer	N/A	Investigator-initiated study in US	Jul-26
PTD802 (small molecule)	Pheno Therapeutics Ltd	Promote remyelination in multiple sclerosis	1	Drug is G protein-coupled receptor 17 antagonist	Jun-26
MDX2301 (tetravalent antibody)	ModeX Therapeutics Inc	Protection against SARS-CoV-2 variants	1	Individuals at risk of severe disease	Jun-26
Alpha1-proteinase inhibitor	Grifols SA	Treat alpha1-antitrypsin deficiency	3	Subcutaneous formulation	Jun-26
RES-010 (oligonucleotide)	Resalis Therapeutics S.r.l.	Metabolic dysfunction in obesity	1b	Target is microRNA-22	Jun-26
RC220 (small molecule)	Racura Oncology Ltd	In combination to treat tumour resistance in lung cancer	1	Combination treatment is osimertinib (Tagrisso)	Jun-26
MIC-Lx (cell therapy)	TolerogenixX GmbH	Immune tolerance in kidney transplantation	2b	Drug is from donor-derived peripheral blood mononuclear cells	Jun-26
Zynlonta (antibody-drug conjugate)	ADC Therapeutics SA	In combination for diffuse large B-cell lymphoma	1b	Combination treatment is bispecific antibody	Jun-26

Clinical Trials: trial initiations, advances and setbacks

UK-based **GSK Plc** has stopped development of a small molecule drug for chronic cough following only limited efficacy for the product in a Phase 3 programme. However, the drug may still be evaluated for irritable bowel syndrome. Camlipixant entered GSK's portfolio with the acquisition of the Canadian company, BELLUS Health Inc, in 2023. At the time, the acquisition was valued at $2 billion. Camlipixant is an antagonist of the P2X3 receptor, a type of receptor primarily found in sensory neurons. The receptors are activated by a molecule often released during cellular stress or injury. GSK was investigating camlipixant for refractory chronic cough, a persistent cough that can last more than eight weeks. In a Phase 2b trial, camlipixant met its primary endpoint by showing statistically significant reductions in 24-hour cough frequency compared with a placebo. The Phase 3 programme however did not match these results. One study met the endpoint of statistically significant reductions in 24-hour cough frequency, but the second study did not. "Based on the aggregate data, the limited efficacy demonstrated is unlikely to transform patient care," GSK said in a statement issued on 17 July 2026.

Netherlands-based **AdJane Holding BV** has reported the first clinical data for a new vaccine platform that is being positioned as a technology for use in preparing for future pandemics. The early data showed that outer membrane vesicles, which are vesicles released from the outer membranes of Gram-negative bacteria, were safe and well-tolerated in 40 healthy adults. The vaccine, based on outer membrane vesicles, was administered intranasally and combined with a SARS-CoV-2 spike protein – the structural component of the virus that caused the COVID-19 pandemic. According to the company, the study showed the ability of its technology to induce both mucosal and systemic immune responses to the virus. Systemic immunity is an antibody response to stop the spread of an infection. By comparison, a mucosal response uses antibodies to neutralise pathogens before they enter tissues. The results of the study were published in the journal *Vaccines* on 29 June 2026. In a prepared statement, Anita Gashi, the company's managing director, said that "current injectable vaccines are highly effective at preventing severe disease but have shown limited ability to interrupt infection and transmission at the mucosal level." The study showed the potential of the technology to be deployed for respiratory infectious disease and pandemic preparedness, she added. The platform is being tested in partnership with the Coalition for Epidemic Preparedness Innovations (CEPI) to develop new vaccines for future health emergencies and with CARB-X, a partnership which is developing new antibiotics.

Italy-based **Resalis Therapeutics Srl** dosed the first patient in late June in a trial of an antisense oligonucleotide drug for obesity. The Phase 1b study has been designed to enrol up to 36 healthy overweight and moderately obese adults in Australia. The goal is to establish the safety of the medicine, but also to examine the effects of the drug on lipid metabolism and fat tissue biology by evaluating metabolic and inflammatory biomarkers. The therapy is a different approach from GLP-1 obesity medicines in so far as it targets microRNA-22, understood to be a regulator of metabolic dysfunction associated with obesity. In a prepared statement, Alessandro Toniodo, chief executive, said that while GLP-1 drugs deliver meaningful and rapid weight loss they do not modify the underlying disease. Patients often lose lean mass and experience a rebound after discontinuing treatment.

The **University of Oxford's Oxford Vaccine Group** in the **UK** has launched the first Phase 1 trial of a candidate vaccine against the Bundibugyo ebolavirus in response to a spread of the virus in the Democratic Republic of the Congo and neighbouring Uganda. The vaccine, ChAdOx1 BDBV, uses the same viral vector platform as used in an earlier COVID-19 vaccine developed by Oxford and AstraZeneca Plc. However instead of carrying instructions for the SAR-CoV-2 spike protein, it has instructions for a Bundibugyo virus protein. The trial will assess the safety of the vaccine and the immune responses it generates in 50 healthy adults between the ages of 18 and 55 years. Subject to regulatory approval, plans are also underway for further clinical studies with partners in Uganda, the university said. The study is being supported by the Coalition for Epidemic Preparedness Innovations in Norway.

Cancer Research UK and its partners have launched a new Phase 2 trial for people with advanced adrenocortical carcinoma, a rare and aggressive cancer. The partners are Cytovation ASA, a biotech developing immunotherapies, and the Norwegian Cancer Society. The study will evaluate the effectiveness of CY-101 (getacatetide), a synthetic peptide therapy. CY-101 has been designed to convert immune-resistant 'cold' tumours such as adrenocortical carcinoma into immune-active 'hot' tumours. It does this by stimulating local immune activation within the tumour microenvironment while simultaneously inhibiting a key pathway of resistance, according to Cancer Research UK.

A study published in *Nature Medicine* in late July has shown that specialist services provided by the **UK National Health Service** to people experiencing long COVID-19 may help reduce fatigue. The study involved more than 1,100 people, making it one of the largest trials to evaluate different approaches to delivering long COVID care. Researchers found that patients' fatigue diminished during the first 12 weeks of specialist care irrespective of whether they also received a multi-organ magnetic resonance imaging or a digital rehabilitation programme. In a prepared statement, Amitava Banerjee, professor at UCL, said "Our findings show that specialist, multidisciplinary long COVID care can make a real difference to patients' fatigue which is one of the most common and disabling symptoms."

European Biotech Financings					
	Recipient	Type of Finance	Use of Proceeds	Comment	Date
FR	Abivax SA	$920 mln public share offering	Support drug candidate obefazimod	Leerink, Morgan Stanley were bookrunners	Jul-26
US	Chai Discovery Inc	$400 mln Series C financing round	Apply AI to drug discovery	Led by Index Ventures, Kleiner Parkins	Jul-26
US	Scribe Therapeutics Inc	$128.7 mln from US initial public offering	Support lead product to lower LDL cholesterol	Led by Leerink and Goldman Sachs	Jul-26
CH	Immitra Bio GmbH	CHF 2.4 mln ($2.93 mln) in pre-seed finance	Scale up gene editing platform + product for anaemia	Led by Backbone Ventures	Jul-26
SG	Tikva Allocell Pte Ltd	$8 mln from Series A financing	IND-enabling activities for CAR T for solid tumours	Led by Kantharos Capital	Jul-26
CH	Basilea Pharmaceutica Ltd	$30 mln in grant funding for research	Advance development of antifungal fosmanogepix	BARDA of the US is the funder	Jul-26
UK	Healome Therapeutics Ltd	£2 mln seed funding round	Advance eye drop technology	Led by Empirical Ventures	Jul-26
FR	Cyllene Therapeutics SAS	€33 mln from Series C financing	Genetic medicine for neurogenic detrusor overactivity	New investors GordonMD + M Ventures	Jul-26
UK	Poolbeg Pharma Plc	£3.5 mln from public share placement	Address side effects across multiple therapies	OAK Securities was bookrunner	Jul-26
ES	Criteria Caixa SA	Plans to invest €300 mln in start-ups	Targets are science + technology companies	Part of 2030 investment plan	Jul-26
ES	Oryzon Genomics SA	€12 mln from share placement	Advance acute myeloid leukaemia programme	Separate deal with Spain's Social Impact Fund	Jul-26
UK	Qureight Ltd	$20 mln Series B financing	Support expansion of 3D deep learning imaging	Led by Molten Ventures	Jul-26
ES	Telum Therapeutics SL	€18 mln Series A financing	Advance antimicrobial programme into the clinic	AMR Action Fund led the round	Jul-26
US	Celea Therapeutics Inc	$180 mln in venture finance	Phase 3 trial of deupirfenidone for idiopathic pulmonary fibrosis	RA Capital Management, others	Jul-26
US	uniQure NV	$259 mln from public share offering	Advance therapy for Huntington's disease	Follows positive meeting with FDA	Jun-26
AT	Epitome Therapeutics FlexCo	€2 mln pre-seed round for total €4 mln in funding	Launch of epigenome editing company	Co-led by XISTA Science Ventures, Caesar Ventures	Jun-26
US	Oblenio Bio Inc	$62 mln Series B financing`	Tri-specific T cell engager for autoimmune diseases	Round led by Pfizer Ventures	Jun-26
EE	Icosagen AS	€45 mln in public, private financing	Expand protein discovery site in Estonia	Funds from European Investment Bank	Jun-26
DE	smartbax GmbH	€6.3 mln in pre-Series A financing	Advance antibiotic programme to the clinic	German family office is new investor	Jun-26

Source: Company announcements

Antibody-drug conjugates

Novartis to acquire Myricx Bio

On 6 July, Novartis announced a new acquisition – this time potentially leading to a novel class of antibody-drug conjugates (ADCs). The company is Myricx Pharma Ltd (Myricx Bio), located in Canary Wharf in London, UK and a spin-out of Imperial College London and the Francis Crick Institute. It has a preclinical portfolio led by two ADCs with novel payloads – small molecule inhibitors of the N-myristoyltransferase (NMTi) enzyme.

Novartis is to pay $1.1 billion upfront for the company with additional milestones of up to $400 million if certain undisclosed benchmarks are achieved.

ADC development has accelerated rapidly since the first drugs came to market in 2013. More than 20 have been approved globally. With very few exceptions, most have passed the Phase 3 hurdle and are being commercialised. However there are reports of tumour resistance to some treatments, triggering demand for alternatives.

"ADCs have become an important part of cancer treatment, but there remains a clear need for new payload mechanisms to overcome resistance and expand their impact for patients," said Fiona Marshall, president of biomedical research at Novartis, in a prepared statement.

Current ADCs have payloads largely consisting of toxins targeting topoisomerase-1, to inhibit DNA assembly, and toxins targeting tubulin, to inhibit the assembly of microtubules. The ADC construct as a whole consists of a monoclonal antibody attached by a chemical linker to a payload which is delivered directly to cancer cells. This occurs when the antibody binds to a receptor on the surface of a cancer cell, releasing the payload into the cell.

The Myricx technology originates from a small molecule drug initially investigated for malaria and subsequently re-positioned for cancer. The company's ADC formulation focuses on research into the NMT enzyme and how it catalyses the addition of a fatty acid to prospective and fully formed proteins. This enables them to bind to cell membranes and control survival pathways. Cancer cells are reportedly sensitive to NMT inhibition because they rely on these pathways to avoid cell death.

To date, Myricx has disclosed some preclinical information for its two lead candidates. One is directed against B7-H3 (CD276), a checkpoint molecule in the tumour microenvironment, and the other is directed against human epidermal growth factor receptor 2 (HER2), a driver of breast cancer. In an interview, Maina Bhaman, a partner in the Sofinnova Partners Capital Strategy and one of Myricx's funders, said the preclinical data has been "pretty outstanding." This was especially the case for measures of toxicity where ADCs with topoisomerase-1 payloads have shown side effects such as interstitial lung disease and neutropenia. "We don't anticipate these [side effects] with this molecule," she said. Separately, Myricx said that the preclinical efficacy and tolerability data for the products has been shown "across multiple solid tumour-associated antigens and cancer cell types."

Myricx's technology was originally supported by Cancer Research UK and backed by seed investment from Brandon Capital and Sofinnova Partners. The company completed a $114 million Series A financing round in 2024 led by Novo Holdings and Abingworth LLP.

Over the years, Novartis has grown its portfolio by developing new versions of small molecule drugs and biologics but also by venturing into new therapeutic territories. Radiopharmaceuticals is one area where it has taken a lead by commercialising theranostics for cancer. This is an approach where imaging and treatment are combined in a two-step procedure for diagnosing and treating cancers. These medicines evolved following Novartis' acquisition in 2017 of Advanced Accelerator Applications of France.

Dr Marshall said that the Myricx acquisition "reflects our strategy to scale innovative platforms, as we have with radioligand therapies, to deliver more durable, transformative treatments for patients." The transaction is expected to close during the second half of 2026.

– By Victoria English

European biotech recovery gathers pace

The second quarter of 2026 marked one of the stronger periods for European biotechnology since the sector correction began in 2022. Although the recovery has not been universal, recent performance suggests investors have returned with a more disciplined approach. At the JP Morgan Healthcare Conference in January, sentiment was starting to improve after a prolonged downturn. Still, merger and acquisition activity remained subdued. Six months later, the landscape looks markedly different.

Recent transactions illustrate this renewed momentum. On 6 July Novartis announced the acquisition of the ADC drug developer Myricx Bio for $1.1 billion upfront, with a further $400 million in potential development and commercial milestones. Although UK-based Myricx is a preclinical company, the deal underlines the value of a differentiated asset: the company's lead ADC has a novel payload.

Similarly, GSK Plc's $10.6 billion takeover of US oncology company Nuvalent Inc shows the financial strength of a large pharma. The deal gives GSK oncology assets with validated targets that address limitations of current standard-of-care therapies. The transaction highlights the renewed willingness of buyers to deploy capital for strategic assets.

The structure of transactions is also evolving. Ipsen SA's acquisition of Kartos Therapeutics combines a $450 million upfront payment with milestone payments that could increase the total value to $1.75 billion. Such arrangements allow acquirers to secure promising assets while sharing the remaining clinical and commercial risk. The deal also strengthens Ipsen's expanding haematology-oncology portfolio.

Performance in the public markets reinforces the same message. Abivax SA is an example of a company whose shares plummeted after an analyst downgrade. But the French biotech was able to defend its clinical performance and lay the groundwork for a public share offering that raised $920 million on 6 July. This is ahead of a US regulatory filing for its lead product, obefazimod, for ulcerative colitis.

The Q2 stock market performance also suggests that platform technology coupled with new products can command premium valuations. Genmab A/S has both. Examples are its approved T-cell engaging bispecific antibody Epkinly for two cancers and the candidate products Rina-S, an ADC for gynaecological cancers, and Peto, a bispecific antibody for head and neck cancers.

Another development has been the renewed interest in messenger RNA beyond Covid-19. The BioNTech SE founders and mRNA specialists, Ugur Sahin and Özlem Türeci, plan to establish a new company focused on research into next-generation mRNA therapeutics. BioNTech itself will concentrate on clinical work and commercial execution. The model could be an example for mature biotech companies seeking to separate discovery from commercial operations.

Commenting on the market, Matt Cooper, chief executive of Sitala Biotech Ltd, and a venture partner at Forbion, said that stronger incentives for R&D and entrepreneurship are improving the outlook for the biotech industry in Europe. But there is still insufficient liquidity to scale up companies. This leaves the US Nasdaq market as the only route for growth beyond M&A. – *By Sean Morgan-Jones, Morgan Prestwich.*

EUROPEAN SPECIALTY PHARMACEUTICAL COMPANIES

Stock market value in Euros at FX rates on 30 June 2026

		30-Jun-25	30-Sep-25	31-Dec-25	31-Mar-26	30-Jun-26	Annual Change	Quarter Change
BE	Argenx SE	29,621,000,000	40,000,000,000	44,564,000,000	39,390,000,000	49,352,000,000	**66.6%**	25.3%
DE	Evotec SE	1,289,000,000	1,110,000,000	968,814,000	778,390,000	904,842,000	**-29.8%**	16.2%
BE	Galapagos (Lakefront)	1,582,000,000	1,960,000,000	1,856,000,000	1,710,000,000	1,720,000,000	**8.7%**	0.6%
DK	Genmab A/S	10,850,000,000	16,560,000,000	17,433,000,000	14,580,000,000	17,120,000,000	**57.8%**	17.4%
FR	Ipsen SA	8,709,000,000	9,880,000,000	9,731,000,000	13,690,000,000	14,000,000,000	**60.8%**	2.3%
DK	Lundbeck A/S	4,730,000,000	5,800,000,000	5,460,000,000	5,050,000,000	5,500,000,000	**16.3%**	8.9%
DK	Novo Nordisk A/S	265,336,000,000	160,000,000,000	197,046,000,000	104,870,000,000	140,000,000,000	**-47.2%**	33.5%
DK	Novonesis A/S	28,330,000,000	21,610,000,000	24,740,000,000	21,620,000,000	22,900,000,000	**-19.2%**	5.9%
FI	Orion Corp	8,916,000,000	9,320,000,000	8,906,000,000	10,081,000,000	9,975,000,000	**11.9%**	-1.1%
SE	Swedish Orphan Biovitrum	8,790,000,000	9,600,000,000	10,590,000,000	13,260,000,000	14,430,000,000	**64.2%**	8.8%
BE	UCB SA	31,709,000,000	47,870,000,000	44,500,000,000	51,330,000,000	49,860,000,000	**57.2%**	-2.9%
DK	Zealand Pharma A/S	3,469,400,000	4,410,000,000	4,352,000,000	2,810,000,000	2,770,000,000	**-20.2%**	-1.4%
	TOTALS	403,331,400,000	328,120,000,000	370,146,814,000	279,169,390,000	328,531,842,000		
	Quarterly change		-18.6%	12.8%	-24.6%	17.7%		
	Cumulative change		-18.6%	-8.2%	-30.8%	-18.5%		

Market Capitalisation of European Biotech Companies

		Stock market value in Euros at FX rates on 30 June 2026						
		30-Jun-25	30-Sep-25	31-Dec-25	31-Mar-26	30-Jun-26	12-mth	Quarter
FR	Abivax SA	418,800,000	5,430,000,000	9,383,000,000	8,490,000,000	9,373,000,000	2138.06%	10.4%
CH	Addex Therapeutics Ltd	12,230,000	12,090,000	8,810,000	6,190,000	6,500,000	-46.85%	5.0%
SE	Alligator Bioscience AB	20,020,000	14,570,000	15,510,000	8,120,000	9,670,000	-51.70%	19.1%
UK	Allergy Therapeutics Plc	440,230,000	464,960,000	775,540,000	747,410,000	467,080,000	6.10%	-37.5%
UK	Aptamer Group Plc	8,280,000	22,370,000	33,280,000	19,330,000	19,210,000	132.00%	-0.6%
NO	ArcticZymes AS	71,980,000	120,000,000	89,000,000	88,820,000	93,000,000	29.20%	4.7%
UK	Avacta Group Plc	138,460,000	288,230,000	288,750,000	322,390,000	403,740,000	191.59%	25.2%
CH	Basilea Pharmaceutica Ltd	672,010,000	678,830,000	721,720,000	785,830,000	709,780,000	5.62%	-9.7%
DK	Bavarian Nordic A/S	1,790,000,000	2,420,000,000	2,030,000,000	2,040,000,000	1,880,000,000	5.03%	-7.8%
SE	Bioinvent International AB	207,300,000	170,000,000	180,000,000	130,000,000	150,000,000	-27.64%	15.4%
DE	Biofrontera AG	15,366,000	17,020,000	14,828,000	15,740,000	14,098,000	-8.25%	-10.4%
UK	CelLBxHealth Plc***	27,000,000	9,960,000	24,590,000	19,520,000	20,290,000	-24.85%	3.9%
FR	Cellectis SA	96,570,000	186,600,000	420,864,000	204,790,000	256,157,000	165.26%	25.1%
IE	Cosmo Pharmaceuticals NV	1,072,380,000	1,210,000,000	1,810,000,000	1,530,000,000	1,240,000,000	15.63%	-19.0%
FR	DBV Technologies SA	220,780,000	615,380,000	678,629,000	1,010,000,000	828,614,000	275.31%	-18.0%
FR	Eurobio Scientific SA	253,369,000	254,680,000	245,163,000	211,130,000	215,461,000	-14.96%	2.1%
FI	Faron Pharmaceuticals Oy	283,031,000	224,750,000	244,860,000	99,520,000	98,905,000	-65.06%	-0.6%
ES	Grifols SA	6,330,000,000	N/A	N/A	5,590,000,000	6,069,000,000	-4.12%	8.6%
UK	ImmuPharma Plc	10,670,000	76,440,000	35,780,000	26,870,000	26,700,000	150.23%	-0.6%
FR	Innate Pharma SA	144,522,000	159,480,000	147,671,000	98,650,000	149,682,000	3.57%	51.7%
SE	Medivir AB	15,970,000	15,380,000	16,990,000	120,000,000	84,130,000	426.80%	-29.9%
SE	Mendus AB	35,170,000	32,710,000	30,920,000	25,750,000	31,650,000	-10.01%	22.9%
IT	Newron Pharmaceuticals SpA	142,906,000	230,800,000	511,930,000	335,930,000	279,690,000	95.72%	-16.7%
FR	Nicox SA	16,202,000	30,460,000	24,116,000	34,940,000	34,720,000	114.29%	-0.6%
UK	Niox Group Plc*	327,680,000	348,120,000	318,630,000	277,770,000	291,700,000	-10.98%	5.0%
BE	Nyxoah SA	241,416,000	169,170,000	176,410,000	106,750,000	158,683,000	-34.27%	48.6%
SE	Orexo AB	62,720,000	100,000,000	100,000,000	70,250,000	75,101,000	19.74%	6.9%
UK	Oxford BioDynamics Plc	7,720,000	10,420,000	12,320,000	9,590,000	4,770,000	-38.21%	-50.3%
UK	OBX Plc (Oxford Biomedica)	390,090,000	809,620,000	906,380,000	754,870,000	882,830,000	126.31%	17.0%
UK	Oxford Nanopore Technologies Plc	1,540,000,000	1,700,000,000	1,420,000,000	1,200,000,000	1,490,000,000	-3.25%	24.2%
ES	Oryzon Genomics SA	207,735,000	246,850,000	245,230,000	220,490,000	223,312,000	7.50%	1.3%
NL	Pharming Group NV	623,580,000	891,550,000	1,010,000,000	1,010,000,000	846,796,000	35.80%	-16.2%
CH	Santhera Pharmaceuticals Holding	163,610,000	154,610,000	181,360,000	247,730,000	252,430,000	54.29%	1.9%
UK	Scancell Holdings Plc	113,700,000	115,160,000	117,950,000	134,380,000	204,120,000	79.53%	51.9%
UK	Shield Therapeutics Plc	34,270,000	93,720,000	120,070,000	95,400,000	77,630,000	126.52%	-18.6%
FR	Transgene SA	112,533,000	149,990,000	261,026,000	203,360,000	202,432,000	79.89%	-0.5%
FR	Valerio Therapeutics SA**	3,605,000	19,720,000	83,158,000	60,950,000	129,607,000	3495.20%	112.6%
DE	Vita 34 (FamiCord Group)	74,440,000	104,080,000	105,462,000	83,260,000	65,440,000	-12.09%	-21.4%
NO	Zelluna ASA	23,750,000	20,830,000	31,140,000	44,000,000	47,530,000	100.13%	8.0%
		30-Jun-25	30-Sep-25	31-Dec-25	31-Mar-26	30-Jun-26		
	Totals	16,370,095,000	17,618,550,000	22,821,087,000	26,479,730,000	27,413,458,000		
	Quarter-to-quarter		7.6%	29.5%	16.0%	3.5%		
	Cumulative		7.6%	39.4%	61.8%	67.5%		

Sources: Yahoo Finance, company websites, *formerly Circassia Group Plc, ** formerly Onxeo SA, *** formerly Angle Plc

European biotechs listed on NASDAQ (Quarterly change in market capitalisation in $m)								
Ticker	Company name		Market Cap 31-Mar-26	Price 31-Mar-26	Market Cap 30-Jun-26	Price 30-Jun-26	Quarterly change in market cap ($)	Quarterly change in market cap (%)
ABVX	Abivax SA	FR	$8,815	$111.35	$10,566	$133.26	$1,751.06	19.9%
ACIU	AC Immune SA	CH	$280	$2.75	$242	$2.38	($37.73)	-13.5%
ADCT	ADC Therapeutics Ltd	CH	$476	$3.75	$136	$1.07	($340.35)	-71.4%
AMRN	Amarin Corporation plc	IE	$301	$14.46	$334	$15.94	$33.49	11.1%
ARGX	Argenx SE	NL	$45,190	$730.25	$57,413	$927.77	$12,223.13	27.0%
ASND	Ascendis Pharma A/S	DK	$14,040	$228.73	$16,566	$266.72	$2,526.89	18.0%
ATAI	AtaiBeckley Inc	DE	$1,291	$3.54	$1,927	$5.27	$635.32	49.2%
AUTL	Autolus Therapeutics plc	UK	$367	$1.38	$426	$1.60	$58.57	15.9%
BCYC	Bicycle Therapeutics	UK	$232	$4.64	$213	$4.24	($18.53)	-8.0%
BNTX	BioNTech SE	DE	$22,338	$88.88	$23,531	$93.05	$1,193.09	5.3%
CLLS	Cellectis SA	FR	$229	$3.17	$302	$3.00	$72.53	31.6%
CMPS	COMPASS Pathways Plc	UK	$531	$5.53	$1,909	$14.15	$1,377.81	259.3%
CRSP	CRISPR Therapeutics AG	CH	$4,566	$47.57	$5,257	$54.54	$690.85	15.1%
DMRA	Damora Therapeutics Inc	DK	$1,562	$25.90	$1,569	$26.01	$7.11	0.5%
DBVT	DBV Technologies SA	FR	$1,163	$20.89	$971	$16.40	($192.11)	-16.5%
EVAX	Evaxion A/S	DK	$31	$3.72	$26	$3.10	($5.17)	-16.7%
EVO	Evotec SE	DE	$889	$2.50	$994	$2.80	$105.94	11.9%
GNTA	Genenta Science SpA	IT	$13	$0.67	$43	$1.84	$30.25	235.1%
GNFT	Genfit SA	FR	$514	$10.31	$606	$12.12	$91.92	17.9%
GMAB	Genmab A/S	DK	$16,536	$26.83	$16,862	$27.47	$326.42	2.0%
GHRS	GH Research Plc	IE	$872	$14.06	$1,668	$26.88	$795.84	91.3%
IMTX	Immatics NV	DE	$1,319	$9.84	$1,384	$10.13	$65.31	5.0%
IPHA	Innate Pharma	FR	$120	$1.28	$172	$1.84	$52.41	43.7%
IVA	Inventiva SA	FR	$1,152	$5.55	$730	$3.78	($421.87)	-36.6%
JAZZ	Jazz Pharmaceuticals Plc	IE	$11,638	$189.05	$15,109	$240.97	$3,470.84	29.8%
LKFT	Lakefront Biotherapeutics NV	BE	$1,977	$30.00	$1,976	$29.98	($1.32)	-0.1%
MREO	Mereo BioPharma Group plc	UK	$53	$0.33	$51	$0.32	($1.80)	-3.4%
MOLN	Molecular Partners AG	CH	$148	$3.97	$145	$3.87	($3.32)	-2.2%
MLTX	MoonLake Immunotherapeutics AG	CH	$1,337	$18.64	$1,404	$19.47	$67.44	5.0%
NBTX	Nanobiotix SA	FR	$1,493	$30.87	$1,824	$37.70	$330.77	22.1%
NCNA	NuCana Plc	UK	$6	$1.40	$6	$1.52	$0.50	8.6%
PHVS	Pharvaris NV	NL	$1,810	$28.25	$2,262	$34.58	$452.79	25.0%
PRQR	ProQR Therapeutics NV	NL	$171	$1.62	$196	$1.86	$25.29	14.8%
PRTA	Prothena Corporation plc	IE	$523	$9.72	$520	$9.79	($3.63)	-0.7%
TLSA	Tiziana Life Sciences Plc	UK	$139	$1.17	$154	$1.28	$15.19	10.9%
QURE	Uniqure NV	NL	$1,007	$16.35	$2,903	$46.06	$1,896.09	188.2%
VALN	Valneva SE	FR	$538	$6.25	$450	$5.23	($87.76)	-16.3%

Sources: Nasdaq and company statements. Market capitalisation figures are in millions of US dollars

Gene therapy shows promise

A liver-targeted gene therapy has restored liver function and improved survival in a mouse model of the rare inherited disorder arthrogryposis, renal dysfunction and cholestasis (ARC) syndrome, offering a potential treatment strategy for a disease that is usually fatal in infancy.

The preclinical study, published in *Nature Communications* on 19 June, was led by researchers at University College London (UCL) and Great Ormond Street Hospital, London, UK. ARC syndrome is most commonly caused by defects in the VPS33B gene, resulting in impaired bile flow, progressive liver damage and death, with few affected children surviving beyond their first year.

The investigators delivered a functional copy of the VPS33B gene using a lentiviral vector. In mice lacking the protein, the treatment restored key aspects of liver function, improving survival to around 80% compared with approximately 33% in untreated animals. Treated mice also showed improved growth, reduced liver fibrosis and restoration of bile canaliculi.

Although an earlier version of the therapy, which used a broadly active vector, led to liver tumours in around 30% of treated mice, a redesigned vector that restricted gene expression to liver cells eliminated tumour formation while maintaining therapeutic benefit.

Benefits of healthy diet

Modest reductions in meat and dairy consumption could help Scotland lower greenhouse gas emissions while improving public health without increasing household food costs, according to a modelling study published in *Nature Food* on 3 July.

Researchers at the University of Edinburgh evaluated 33 dietary pathways designed to meet the UK Climate Change Committee's recommendations for reducing meat and dairy consumption. The scenarios assessed the effects on greenhouse gas emissions, land and water use, diet costs, nutrient intake and health outcomes including type 2 diabetes and cardiovascular disease.

Across almost all scenarios, replacing processed and unprocessed meat and dairy with foods such as vegetables, beans, eggs and plant-based dairy alternatives improved environmental and health indicators while having little impact on the overall cost of diets.

The modelling suggests that even small gram-for-gram substitutions in everyday meals could deliver meaningful long-term benefits. Replacing some meat with alternative foods did not adversely affect nutrient intake, although lower dairy consumption could reduce iodine intake in some groups, which the researchers said could be addressed through fortification of plant-based dairy alternatives.

The greatest benefits were predicted when dietary changes focused on people with the highest red meat consumption rather than applying reductions evenly across the population. This approach was estimated to prevent almost 60,000 cases of type 2 diabetes over 10 years while delivering larger environmental gains.

Findings for endometriosis

Researchers at the University of Edinburgh, Scotland, have identified a distinct hormone signature in the blood of women with endometriosis that could form the basis of a non-invasive diagnostic test, offering a potential alternative to the current surgical diagnosis and helping to shorten the lengthy delays many patients face.

The findings, published in the *European Journal of Endocrinology* on 7 July, suggest that women with endometriosis have characteristic differences in a group of adrenal-derived androgens known as 11-oxygenated androgens. The researchers say the hormone profile correctly identified more than 95% of women with the condition in a blinded validation sample, although they stress that larger studies are needed before the approach can be adopted clinically.

Endometriosis affects an estimated 190 million women worldwide and occurs when tissue resembling the lining of the womb grows outside the uterus, causing inflammation, pain and scarring. Diagnosis in the UK currently takes an average of more than nine years and is confirmed through laparoscopic surgery, highlighting the need for reliable, non-invasive diagnostic methods.

Although endometriosis has traditionally been regarded as an oestrogen-driven disease, the Edinburgh-led study points to an important role for androgens, a class of hormones that includes testosterone and is present in both men and women. The contribution of adrenal-derived 11-oxygenated androgens has previously received little attention.

The investigators analysed blood samples from 159 women with laparoscopically confirmed endometriosis and 57 women without the disease.

Using metabolomic data, the team developed statistical models capable of distinguishing women with and without endometriosis with high accuracy. The best-performing model achieved an area under the curve of 0.99, with positive and negative predictive values of 96.84% and 92.86%, respectively.

Dr Douglas Gibson, principal investigator at the University of Edinburgh's Centre for Reproductive Health, said: “These findings mark a significant breakthrough in our understanding of endometriosis. Traditionally seen as an oestrogen-driven disorder, our research challenges this view by showing different androgen levels in the condition. We are optimistic that this new insight will lead to earlier diagnosis and the development of innovative new treatments for those affected by endometriosis.”

The University is now working with its commercialisation arm, Edinburgh Innovations, to identify industry partners to develop a blood-based diagnostic test.

Emma Cox, CEO of Endometriosis UK, welcomed the findings but urged caution. "A reliable, non-surgical diagnostic test is much needed, long-awaited, and could help drive down diagnosis times to just a few months. These early results are promising, however larger trials will be essential to validate these findings. This is exactly why investment in endometriosis research matters - and why we will be following the progress of this research with interest.”

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- VC & Private Equity Investor Roundtable
- Advances in Immunology & Inflammation Panel: Investor Perspectives
- Investment Opportunities in Women's Health Panel
- Neuroscience Innovation Panel
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- China Partnering & Investment Panel
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Commentary: A new strategy for AI

Anthropic introduces Claude to pharma

In what could be one of the most significant developments in pharmaceutical research since the introduction of computational chemistry, US-based artificial intelligence (AI) company Anthropic public benefit corporation (PBC) launched Claude Science on 30 June 2026. Claude Science is an application of Anthropic's large language model, Claude, specifically designed to accelerate drug development. A large language model (LLM) is a type of artificial intelligence designed to comprehend, process and generate human-like text.

Originally released in 2023, Claude can write code, conduct research and hold conversations. It has been implemented in various guises including: Claude Code, an AI coding assistant that automates writing, editing and testing of computer code; Claude Cowork, which offers similar functionality but with a graphical user interface; and Claude Design, a visual creation tool for designing prototypes, marketing materials and other things.

Describing the new Claude Science application as "an AI workbench for scientists", Anthropic said that it "integrates the tools and packages that researchers most commonly use, produces auditable artefacts, and provides flexible access to computing resources". Among other challenges, researchers often need to work across numerous databases, each with its own architecture, and handle file formats that demand bespoke data pipelines and viewers. Claude Science consolidates these various tools into a single research environment, thus streamlining work stages, the company says. This aids literature analysis and multi-step research execution, and facilitates iterative refinement of materials for publication. Every output is backed up by an auditable history, supporting validation and reproducibility of results.

Anthropic says that because scientific research is inherently visual, Claude Science is designed to generate scientific artefacts such as diagrams and manuscripts that are easily reproducible. Such diagrams might include three-dimensional protein structures, genome maps and chemical structures, for example. When generating a diagram, Claude Science retains the exact code and environment that produced it, provides a simple explanation of how it was made, and preserves the complete message history. This transparency is intended to make it easy to validate and reproduce the process even months later. Furthermore, it makes it possible to request changes to diagrams, such as removing gridlines or changing an axis from linear to logarithmic, in plain language, the company adds.

Claude Science is being made available to Anthropic's corporate users in beta format for the macOS and Linux systems. In addition, the company is offering discounted subscriptions to scientific laboratories at academic institutions and non-profit research organisations. The platform will continue to be refined based on user feedback.

However, Anthropic seems to be going beyond simply licensing Claude Science to established pharmaceutical companies. At the launch event, Eric Kauderer-Abrams, Head of Life Sciences at Anthropic, confirmed that the company is developing its own drug discovery programme. This platform will be used to explore potential treatments for neglected diseases, rare genetic disorders and tropical diseases. These conditions often go unaddressed by Big Pharma because they fail to offer a viable return on R&D investment. Development costs are typically unaffordably high and the potential market is relatively small, either because of limited patient numbers or because these conditions are prevalent in poorer countries where patients cannot afford treatment. Anthropic believes AI could change these economics.

As a public benefit company, Anthropic enjoys some degree of protection from the external pressures that affect most private companies, so it would seem well placed to pursue treatments for neglected diseases. However, another compelling reason for Anthropic to develop its own drug discovery programme is the valuable insights it provides into research scientists' needs, which will be used to inform future product development. Additionally, the programme offers immediate feedback on how Claude Science affects the drug discovery process, thus permitting ongoing refinement. This continuous improvement could serve as a powerful marketing tool when selling the product to traditional pharmaceutical companies.

It is not clear at this stage how far Anthropic plans to venture into developing new medicines in-house. Rather than taking a promising candidate to market itself, it might opt for the more conventional route of out-licensing it to a well-established pharmaceutical company for late-stage development. Clinical trials and regulatory compliance are the most costly aspects of drug development and the prevailing wisdom suggests these are best managed by specialists.

Aside from Claude Science, Anthropic's AI technology is already being employed by numerous pharma companies. For example, Bristol Myers Squibb Company is deploying Claude in a number of areas, including automating the full lifecycle of trial documentation, from drafting clinical study reports and patient safety narratives to supporting regulatory submissions. Novo Nordisk A/S has used Claude Code to develop NovoScribe, a generative AI platform, initially to expedite the production of clinical study reports and subsequently to facilitate the creation of device protocol documentation and patient materials. Another example is Sanofi SA, whose internal AI assistant, Concierge, is powered by Claude and is employed in every business unit, from R&D to HR.

– By Peter Charlish, science editor at MedNous.

For more news visit www.mednous.com

Commentary: A different model of care

The case for proactive chronic disease management

The US healthcare system, and others across the developed world, share a fundamental design flaw: they have been built to respond to illness, not prevent it. For the 130 million people in the US living with at least one chronic disease, this reactive model delivers predictable and largely avoidable failure.

Patients receive care when symptoms become intolerable – by which point significant physiological deterioration has already occurred. The consequences are staggering: chronic diseases in the US consume 90% of national healthcare expenditures, and total healthcare spending has reached 18% of GDP with no credible path to reduction under the status quo.

Congestive heart failure (CHF) is the clearest case study. According to a June 2025 study in the *Journal of the American Heart Association*, heart failure has now surpassed myocardial infarction as the leading cause of cardiovascular death. Approximately 6.2 million US adults live with CHF, yet the standard of care follows a disheartening pattern: diagnosis during acute decompensation, discharge with minimal surveillance, undetected fluid accumulation, and inevitable rehospitalisation. Thirty-day readmission rates of 20-25%, per-admission costs of $10,000-$20,000, and a 50% five-year mortality rate are the measurable outcomes. Many of these hospitalisations are preventable – directly attributable to fluid overload and medication non-adherence that continuous monitoring could detect days before clinical crisis.

The technological foundation for a fundamentally different model of care is not on the horizon – it exists today. Modern wearable devices achieve 91-100% sensitivity and specificity for atrial fibrillation detection compared to a standard electrocardiogram (ECG). Beyond cardiac rhythm, contemporary multi-sensor wearables simultaneously and continuously measure ECG, heart rate variability, thoracic impedance, respiratory rate, activity, and sleep architecture – providing a comprehensive physiological profile from a single non-invasive patch worn at home. The most advanced platforms execute machine learning algorithms directly on the patient-worn device, enabling real-time deterioration prediction at performance levels previously achievable only in clinical settings.

The economic contrast with older implantable approaches is substantial. CardioMEMS, a pulmonary artery sensor implantation, carries a procedural cost of $20,000-$30,000 per patient, requires surgery, and monitors a single physiological parameter. Advanced wearable patches cost hundreds of dollars, can be deployed immediately to any patient regardless of surgical candidacy, and provide multi-parameter continuous monitoring. This is not an incremental improvement – it is a structural shift in who can access proactive care.

The clinical evidence base for proactive monitoring is substantial and maturing. Programmes utilising advanced non-invasive wearables consistently show hospital readmission rate reductions of 30-50% compared with standard care, with high-performing cohorts achieving reductions exceeding 65%. Clinicians can intervene an average of three to seven days earlier than symptom-driven detection allows. Patient acceptance rates exceed 85%. Per-patient annual cost reductions of $2,000-$8,000 are documented – with every dollar invested in proactive CHF management generating an estimated $2-$4 in savings. One large integrated health system reduced 30-day readmissions from 24% to 12% while cutting per-patient costs by $3,200 annually.

These principles extend well beyond heart failure. Continuous glucose monitoring in diabetes, remote monitoring in chronic obstructive pulmonary disease (COPD), biomarker tracking in kidney disease – in each condition, the same pattern holds: continuous monitoring enables earlier detection; earlier detection enables simpler intervention; simpler intervention prevents costly complications. This reflects a structural property of chronic disease biology that consistently favours early over late action.

The workforce crisis compounding today's pressures makes the case for proactive care even more urgent. AI-driven continuous monitoring offers a powerful remedy: by surfacing only the most timely and actionable alerts – filtered from streams of physiologic data no human team could manually track – these systems function as a force multiplier for the clinicians who remain. A cardiologist empowered by intelligent, prioritised alerts can effectively oversee a far larger and higher-acuity patient population without a proportional increase in staff.

Implementation barriers are real but surmountable. Reimbursement structures built around procedures rather than outcomes provide no incentive for the hospitalisations that proactive programmes prevent. Transition to value-based payment models is the most critical policy lever for accelerating adoption. Workflow integration requires investment in care coordination infrastructure and electronic health record connectivity – costs consistently recovered through reduced hospitalisation. And the equity dimension cannot be overlooked: for rural CHF patients, where the nearest specialist may be hours away, wearable-based proactive monitoring is not an incremental improvement – it is a structural correction to one of the most persistent failures of US healthcare.

The reactive model is not merely suboptimal – it is structurally unsustainable under the demographic pressures now building. The tools required for transformation are available today. The question is how quickly the field can make it happen. The answer carries profound consequences.

This article was written by Ralph L. Beck, William T. Denman MD, Stephen A. McCalmont, David P. Shimkus, and Warren J. Wexelman MD. The authors are physician experts in heart failure, and principal innovators in real-time healthcare analytics.

argenx to buy Forte Biosciences

argenx SE is to expand its immunology portfolio with the acquisition of Forte Biosciences Inc of Dallas, Texas, US, whose lead product is being investigated in two autoimmune diseases. The Netherlands-based company is to pay $77 per share in cash for the company, representing an equity value of about $2.2 billion – it's largest deal to date. Both companies are listed on the US Nasdaq exchange.

Announcing the deal on 27 July, Karen Massey, argenx's new chief executive, said the transaction advances the company's ambition to be "the leading immunology innovator of the future." The news was disclosed just four days after the release of the company's second quarter results which showed net sales of $1.5 billion, compared with $949 million a year earlier. The company derives nearly all of its revenue from Vyvgart, an antibody drug that blocks the recycling of immunoglobuline G, for the treatment of generalised myasthenia gravis, a chronic neuromuscular disease. Forte's lead product, FB102, is an investigational monoclonal antibody in Phase 1b studies for vitiligo, a skin disorder, and celiac disease, a chronic digestive disorder. Other autoimmune disorders are also under review.

The acquisition is expected to close in the third quarter.

Vertex taps endocrinology

Vertex Pharmaceuticals Inc, well-known for its cystic fibrosis therapies, has turned to endocrinology as a strategy for growth with the acquisition of Crinetics Pharmaceuticals Inc of San Diego, US. Announced on 6 July, the deal is valued at $10 billion, or about $8.8 billion net of the estimated cash on Crinetics' balance sheet.

The transaction will provide Vertex with one marketed medicine and one late-stage candidate product, both of which are designed to treat disorders of the endocrine system. The marketed product, Palsonify (paltusotine), is a small molecule drug for adults with acromegaly, a rare hormone condition that occurs when a noncancerous tumour on the pituitary gland makes too much growth hormone. The drug is a synthetic version of somatostatin which activates receptors to reduce levels of growth hormone and insulin-like growth factor 1. Palsonify has been approved by both the US Food and Drug Administration and the European Commission.

The candidate product, atumelnant, also a small molecule, is in Phase 3 development for congenital adrenal hyperplasia, a rare, chronic genetic condition affecting the adrenal glands. The disease impairs the synthesis of cortisol, which controls the body's response to stress, while producing an excess of androgen, needed for growth and development. According to Vertex, Phase 2 studies of atumelnant showed that patients were able to achieve a near normalisation of excess androgen levels.

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Lilly acquires psychedelics

Eli Lilly and Co is to enter the therapeutic arena for psychedelic medicines with the acquisition of AtaiBeckley Inc of New York City, US, giving it ownership of clinical-stage products for treatment-resistant depression and social anxiety disorder. Announced on 16 July, the deal involves an upfront cash payment of $2.8 billion. There would also be an additional $1 billion due by Lilly to the seller if certain development and regulatory milestones are met.

AtaiBeckley's lead product, BPL-003 (mebufotenin benzoate), is a nasal spray for treatment resistant depression, defined as a condition where a depressed person does not respond adequately to two different treatments. BPL-003 is a synthetic form of 5-MeO-DMT which is a naturally occurring psychedelic compound.

BPL-003 is in Phase 3 development and has received a 'breakthrough therapy designation' from the US Food and Drug Administration. AtaiBeckley's two other clinical-stage products, both in Phase 2, are VLS-01, for treatment-resistant depression, and EMP-01 for social anxiety disorder.

According to the US National Institute on Drug Abuse, psychedelics represent a diverse group of psychoactive substances that can alter perception, mood and cognitive processes. Their primary mechanism of action is the activation of serotonin 2A receptors in the brain. Given strong interest by developers in these drugs the FDA updated its guidance on 14 July on the requirements for gaining regulatory approval. A public hearing on the guidance is scheduled for 14 September.

Ipsen gets kidney asset

France-based Ipsen SA is to advance its rare disease portfolio with the acquisition of Memo Therapeutics AG of Switzerland whose lead product is a monoclonal antibody directed against a virus that can harm patients receiving kidney transplants. The antibody, potravitug, is still in clinical development but has shown a potential to neutralise the BK polyomavirus which can lead to graft loss and the failure of a transplant. The BK virus, also known as the Human polyomavirus 1, is a member of the polyomavirus family.

Potravitug received a 'fast track' designation from the US Food and Drug Administration in 2023 and an orphan designation from the European Union in 2025. The candidate drug is directed against a capsid protein on the virus, thereby blocking its entry into cells.

"BK polyomavirus associated nephropathy is a significant clinical challenge in kidney transplant recipients," said Darshana Dadhania, an associate professor of medicine at Weill Cornell Medicine, US, in a prepared statement, noting that the absence of a treatment targeting the virus means clinicians are forced to reduce immunosuppressive therapy. This increases the risk of graft rejection and graft loss.

In a Phase 2 study, potravitug has shown higher rates of viral load reduction in kidney transplant patients compared with a placebo, according to Ipsen.

Ipsen is pay up to €700 million to acquire Memo Therapeutics and the potravitug programme.

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IPO for Scribe Therapeutics

Scribe Therapeutics Inc, a company co-founded by the Nobel laureate Jennifer Doudna, has raised $128.7 million in an initial public offering on the US Nasdaq market – one of a growing number of biotech companies to go public this year. The funds will be used to advance the company's lead programme for patients with elevated low-density lipoprotein cholesterol (LDL-C) through Phase 1, and to develop two preclinical projects for cardiovascular and metabolic disorders.

Co-founder Dr Doudna was the recipient, together with Emmanuelle Charpentier, of the Nobel Prize in Chemistry in 2020 for their development of the Crispr-Cas9 gene editing tool. Scribe has its own gene editing technology which is being applied to its preclinical cardiometabolic pipeline.

The company's lead programme, STX-1150, is an epigenetic medicine that is designed to silence a gene without editing or permanently altering DNA. The goal is to lower LDL-C in the bloodstream by silencing the expression of the PCSK9 gene and enhance clearance of the lipoprotein. At high levels, LDL-C is a risk factor for heart attacks and stroke. The STX-1150 molecule is comprised of a messenger RNA and a guide RNA delivered in lipid nanoparticles to the liver. The mRNA produces a protein that switches off PCSK9 gene expression without altering DNA, according to the company's filing with clinicaltrials.gov.

Scribe's IPO consisted of 8.58 million shares priced at $15 per share. In parallel, the company sold 500,000 shares to Sanofi SA in a private placement at the same price.

Separately, in June, Scribe was awarded $25 million from the California Institute for Regenerative Medicine to support advancement of its two preclinical programmes.

uniQure raises $259 million

uniQure NV has raised $259 million from a public share offering on Nasdaq a little more than a week after receiving positive feedback from the US Food and Drug Administration for a marketing authorisation application for the gene therapy AMT-130. Proceeds from the offering were announced on 25 June. They will be used to advance the therapy, which has been developed to treat Huntington's disease, towards commercialisation. The company is expected to file an application for an accelerated approval of the therapy during the third quarter.

Huntington's disease is an autosomal dominant condition where a genetic mutation leads to the production of abnormal proteins in the brain. AMT-130 uses an adeno-associated virus to deliver microRNA to the striatum in order to induce the silencing of a mutant huntingtin gene and the subsequent toxic proteins. Approximately 75,000 people are said to have Huntington's disease in the US, EU and the UK.

uniQure was founded in the Netherlands and maintains its global headquarters in Amsterdam, with US operations in Lexington, Massachusetts. It has a gene therapy for haemophilia B on the market and other therapies in development for refractory temporal lobe epilepsy and Fabry disease.

Funds for Chai Discovery

A two-year old biotech company based in San Francisco, US, completed a $400 million Series C financing round on 14 July to support the use of AI in discovering new molecules for drugs. Chai Discovery Inc is a private company which has been given a valuation of $3.8 billion by its investors which included Index Ventures, Kleiner Parkins, Sequoia Capital and Dimension Capital. The round was additionally supported by 15 other firms.

The scale and speed of the financing are being attributed to Chai's application of the newest technologies to some of the most intractable drug discovery problems. These include predicting and reprogramming the interactions between molecules. Both Eli Lilly and Co and Pfizer Inc are collaborating with Chai to identify targets for their development work which has not been possible with existing technology. According to *Endpoints News*, Netherlands-based argenx SE is negotiating a collaboration with the US company as well.

Thus far Chai's work has focused on antibody development. The latest iteration of the technology has reportedly produced antibodies that bind more tightly to their intended targets than existing ones.

Chai's co-founder and chief executive is Joshua Meier, a former researcher at OpenAI. He is joined by Jack Dent, also co-founder, and previously with the financial technology company Stripe Inc. Other members of the executive team are Matthew McPartion from Absci Corp, and Jacques Boitreaud, from Aqemia Ltd.

UK consolidates departments

In one of its first policy measures, the new UK government led by prime minister Andy Burnham announced plans on 21 July to merge the department which oversees science and technology with that for business and trade. The new department will be called the Department for Business, Innovation, Science and Trade. It will be led by Jonathan Reynolds, a former business secretary.

In a statement issued by a Labour Party member of the House of Lords, the government said that "the functions of the Department for Science, Innovation and Technology will be redistributed to align with our core economic and social agenda, embedded as vital engines of growth exactly where they can have the most direct impact. This move recognises that technology and innovation are not separate sectors of our economy – they are the foundation of all future industry, culture and public service delivery."

In one of several comments following the announcement, Paul Nurse, president of the Royal Society, said that "the new prime minister understands the transformative power of science, knowledge, innovation and technology. They are all parts of an interlinked and interdependent system of research that drives economic growth, health care, security, education, prosperity and the public good." He added that "it is essential that science is in no way a junior partner."

AZ confirms revenue goal

AstraZeneca reaffirmed its ambition to achieve revenue of $80 billion by 2030 after a second quarter that featured 12 regulatory approvals across four regions and five positive Phase 3 readouts. The positive trial results included one for a new antibody-drug conjugate, sonesitatug vedotin, that showed improved overall survival for patients with advanced gastric cancers.

At a press briefing on 27 July, Pascal Soriot, the chief executive, also commented on two recent Phase 3 trial failures. The first was an antisense oligonucleotide for transthyretin-mediated amyloid cardiomyopathy, a potentially fatal disease of the heart muscle. The second was an antibody treatment for blood clotting after a stem cell transplant. He said the first failure was unexpected, but that as a rule, trial successes and setbacks are built into revenue forecasts. Offsetting this were two drug launches during, and just after, the quarter. These were for Baxfendy, a small molecule drug for hypertension, and Etcamah for estrogen receptor positive, HER2-negative breast cancer.

AstraZeneca reported revenue of $15.4 billion for the second quarter, up by 6% at actual exchange rates and by 5% at constant exchange rates. The company spent $4.1 billion on research and development, which was 26% of revenue. Operating profit was $3.2 billion, down by 13% at constant exchange rates. However core operating profit, a non-IFRS measure, was $5.2 billion, up by 10%.

AstraZeneca is forecasting total revenue growth for the year at a mid-to-high-single-digit percentage at constant exchange rates.

Novartis guides for 2026

Novartis expects net sales to rise by a low single-digit percentage this year and core operating profit to take a small dip as it faces patent expiries while accelerating work to bring new products to the market. The forecast follows net sales in the second quarter of $14.4 billion, up by 3% in US dollars from a year earlier and by 1% at constant exchange rates. By comparison, sales in the first quarter declined. Second quarter core operating profit, a non-IFRS measure excluding amortisations and impairments, was flat.

Among recent regulatory approvals, both in Europe, are Rhapsido for chronic spontaneous urticaria, a serious skin condition, and Itvisma, a gene replacement therapy for spinal muscular atrophy. Both products were approved in the US in 2025.

Separately, Novartis has applied for an accelerated approval in the US for an antibody oligonucleotide conjugate for Duchenne muscular dystrophy which it acquired with the takeover of Avidity Biosciences Inc in February. The drug, delpacibart zotadirsen (del-zota), works by enabling the body to bypass certain defective gene sequences to produce functional dystrophin protein.

GSK focus is on late-stage

GSK Plc gave further details of its investment plans on 28 July with the release of its financial results for the second quarter. Turnover for the quarter was £8.4 billion, up by 5% in both actual and constant exchange rates, leading the company to forecast growth for the year of 3% to 5% at constant rates. The company expects to pay a dividend of 70 pence per share for the full year. However operating profit fell by 75% at constant exchange rates to £481 million, driven by higher impairments. This was largely due to the company's decision to discontinue development of camlipixant, a product for refractory chronic cough after Phase 3 trials showed limited efficacy.

Core operating profit, a non-IFRS figure, was £2.8 billion, up by 7% at constant exchange rates. GSK spent £1.7 billion on R&D during the quarter, or 20.5% of sales. This figure is net of an impairment charge for the camlipixant programme which was £1.3 billion. At a press briefing, Luke Miels, the chief executive, said the company is launching a three-year cost savings programme in order to simplify the organisation and reallocate capital resources. Savings will be primarily reinvested in the late-stage portfolio, in R&D, and in measures to improve profit margins ahead of the expiry of patents for dolutegbravir (Tivicay), an HIV drug first approved in 2013. Mr Miels also announced plans to invest £400 million in UK life sciences. This includes setting up a new R&D centre in the biomedical campus in Cambridge, UK.

Roche leans into new products

At a time of patent expiries and a strong Swiss franc, the Roche Group is expanding its presence in oncology and other disease areas in order to stimulate growth. Sales for the first half year were CHF 30.4 billion, an increase of 6% at constant exchange rates, and 8% in US dollars. Measured in Swiss francs however, sales declined by 2%. The trend, driven by an appreciation of the franc, was visible across both the pharmaceutical and diagnostics divisions. Pharmaceuticals delivered sales of CHF 23.6 billion, up by 6% at constant exchange rates, and down by 1% in francs, while diagnostics had sales of CHF 6.7 billion, up by 3% at constant rates, and down by 3% in francs.

IFRS operating profit for the first half was CHF 9.67 billion, up by 6% at constant exchange rates, and down by 6% in Swiss francs.

The launch of generic versions of five former Roche blockbuster medicines, including Avastin and Herceptin, put downward pressure on sales. To offset this, the company has widened the scope of its disease coverage and now generates revenue from drugs for asthma, haemophilia A, multiple sclerosis, breast cancer, and severe eye diseases. Heading for US regulatory reviews are new drugs and new indications for breast cancer, thyroid eye disease, colon cancer and idiopathic nephrotic syndrome.

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Commentary: Marco Ravot-Licheri

How agentic AI changes work in the laboratory

Everyone has heard about the potential of artificial intelligence (AI) to transform the laboratory. Is it a game changer or just a gimmick? And if its impact really is that significant, what will it mean for the laboratory as we know it today?

Answering these questions requires us to look at the practical problems faced in today's laboratories. One of the things that often frustrates lab users is having to complete repetitive and tedious tasks before reaching the genuinely exciting part of the work focused on pursuing scientific breakthroughs.

Understanding why an experiment failed even though the protocol was followed, continually checking whether every parameter remained within its optimal operating range, or repeating experiments because of mysterious errors. These activities are necessary, but they consume time and attention that scientists could otherwise devote to higher-value work.

This is where agentic AI can already make a measurable difference. Error diagnosis AI agents can identify hidden patterns behind failures in seconds, such as a correlation between humidity and error rates for specific assays. Instead of spending days conducting complex analyses to determine what is affecting an assay, scientists can use AI agents to perform these checks faster and more comprehensively. Once the root causes have been identified, error prevention AI agents can proactively alert scientists when an error is likely to occur, giving them time to intervene before it is too late and potentially save the experiment. A minor change in humidity caused by a small problem with an air-conditioning system, for example, might previously have gone unnoticed. With AI agents, scientists can be alerted when the variation approaches a dangerous threshold for their assay.

Instead of facing a failed experiment and being left to wonder why, scientists now have the opportunity to prevent the failure. When an error does occur, run rescue AI agents can act as valuable assistants, helping scientists resolve the issue on the spot without unnecessary escalation or waiting time. Agentic AI can also support activities such as inventory planning by accurately estimating the labware needs for the coming month.

This is changing how scientists work in the lab. Rather than moving directly to run an experiment, they can begin from a lab analytics platform. Using plain English - or any other language - they can ask whether past errors correlated with any other recorded variable. The answer is not based only on generic guidelines, but on real data from that specific experiment and laboratory.

Once an error's root causes have been identified – for example, humidity, temperature, time of day, or concurrent experiments generating mechanical vibrations in the same laboratory – error prevention AI agents can also be configured in a conversational way. So when scientists start the experiment, they can then step away while the automation platform runs and focus on their next idea, or simply have a coffee. They know they will receive a notification on their phone if intervention is needed to prevent an error.

The foundational enablers to effectively use agentic AI for proactive prevention and rapid troubleshooting are high-quality structured data and ease of use. Meaningful insights require reliable datasets, while for broad adoption it is crucial to make it easy from day one for every person in the lab to use this technology. The supporting infrastructure – from reliable guardrails providing accurate outputs to powerful large language models built on deep industry-specific knowledge – gives the foundation for the responsible and safe use of AI. Scientists can therefore focus on the science: deciding which questions matter and issuing natural-language commands to configure AI agents that support the success of the next experiment.

This is a practical example of how laboratories can begin using AI: not a gimmick, nor a two-year implementation project, but concrete error reduction and fleet effectiveness solutions that can be set up in less than one day. And historical data can be used immediately where log files are available, allowing scientists to generate value from the outset. This matters because AI adoption is about people as much as it is about technology. Providing a use case that delivers tangible value in an easy-to-use way is essential to help scientists benefit from the opportunities AI is bringing.

While the use of AI in the lab can lead to exciting outcomes, it also needs to be treated with care. It is essential to adopt rigorous guiding principles for responsible use of AI. Data architecture is key to ensuring full data privacy and data segregation, so that AI agents have by-design access only to the information needed to solve their specific task and sensitive data is not shared outside their use cases. Moreover, it is essential to set up stringent AI guardrails to minimise AI hallucinations – in the lab it is usually better to receive no answer than a wrong one.

Looking ahead, physical AI will play an increasingly important role alongside agentic AI. Smarter instruments, for example using cameras and pressure sensors more effectively for real-time quality control and error recovery, will make the lab an even more interactive environment. Closing the loop between the dry lab and the wet lab is another area in which AI is already showing considerable promise.

In conclusion, agentic AI introduces a new paradigm for laboratory operations, with human-centric AI-augmented labs becoming a reality. And we are just scratching the surface of how data-driven labs can use AI to achieve faster discoveries and higher productivity.

This article was written by Marco Ravot-Licheri, head of digital – life sciences business at Tecan Group AG in Switzerland.

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Immitra gets funding

Geneva, Switzerland-based Immitra Bio has raised CHF 2.4 million in an upsized pre-seed financing round to support development of its *in vivo* gene editing platform and its lead programme, IB-003, a potential one-time treatment for inherited anaemia.

The financing includes CHF 2.25 million from venture capital firms and private investors, alongside CHF 150,000 in non-dilutive funding. The round was led by Backbone Ventures and co-led by OCCIDENT, with participation from Another VC, Kickfund, Venture Kick, Zürcher Kantonalbank, FONGIT, ETH Foundation and private investors.

The proceeds will be used to generate preclinical proof-of-concept data for IB-003 while expanding the company's pipeline through its digital target discovery platform and further developing its proprietary gene editing technology.

Founded in Geneva, Immitra is developing mutation-agnostic *in vivo* gene-editing therapies intended to address limitations associated with existing *ex vivo* approaches. Its platform is designed to eliminate the need for stem cell transplantation, patient conditioning, personalised manufacturing and complex cell manipulation, with the aim of producing off-the-shelf treatments for inherited genetic diseases. The company said the approach could improve the scalability, accessibility and commercial viability of gene editing therapies.

Tikva Allocell raises Series A funding

Singapore-based Tikva Allocell has raised $8 million in a Series A financing to advance its lead allogeneic CAR T cell therapy for solid tumours into the clinic.

The round was led by Kantharos Capital and will fund completion of investigational new drug (IND)-enabling studies for TAVST01, with an IND submission planned by the end of 2026. Subject to regulatory clearance, the company intends to begin a Phase 1 study in patients with advanced B7-H3-positive cancers at sites in Singapore and the US.

TAVST01 is an off-the-shelf, donor-derived CAR T therapy targeting B7-H3, a protein expressed in multiple solid tumours including lung, breast, prostate, pancreatic and paediatric cancers. The therapy is based on Epstein-Barr virus-specific T cells, which are naturally maintained by the immune system, and is engineered to resist immune rejection while retaining anti-tumour activity.

Chief executive Ivan Horak said the approach was designed to overcome a key obstacle that has limited donor-derived cell therapies in solid tumours.

News Briefs

Repligen to acquire US cell tools company

Repligen Corp has agreed to acquire US cell processing tools company BioLife Solutions in a transaction valued at approximately $1.5 billion, strengthening its position in the growing cell and gene therapy manufacturing market. The deal values BioLife at $31.00 per share, with shareholders receiving $11.25 in cash and 0.1442 shares of Repligen stock, representing a 24% premium to BioLife's 90-day volume-weighted average share price. The consideration comprises approximately 64% stock and 36% cash, with completion expected in the fourth quarter of 2026, subject to regulatory and shareholder approvals. BioLife's CryoStor biopreservation media is used in 18 approved cell therapies and widely across US-sponsored cell therapy clinical trials. Repligen said the acquisition would add a high-margin consumables business with recurring revenues to its bioprocessing portfolio.

New Center for Therapeutic Genetics in the US

The Broad Institute, Boston Children's Hospital and The Jackson Laboratory have launched the Center for Therapeutic Genetics (CTG), a collaboration designed to make personalised genetic medicines for rare diseases a scalable and repeatable clinical practice. The initiative aims to overcome longstanding barriers in rare disease drug development, where conventional approaches are often too slow and costly for conditions affecting only a handful of patients. CTG will develop shared platforms for designing gene-editing therapies, disease modelling, manufacturing, safety testing and clinical protocols, enabling advances made for one disease to be applied across multiple programmes.

New data for wet age-related macular degeneration

REGENXBIO Inc has reported long-term data supporting the durability of its investigational gene therapy surabgene lomparvovec (sura-vec, ABBV-RGX-314) in patients with wet age-related macular degeneration (AMD) and diabetic retinopathy (DR), with results presented at the American Society of Retina Specialists annual meeting in Montreal, Canada. Five-year follow-up from a Phase 1/2a study in wet AMD showed stable to improved visual acuity and sustained reductions in anti-VEGF treatment burden after a single subretinal administration at doses comparable to those being evaluated in the Phase 3 ATMOSPHERE and ASCENT trials. No drug-related intraocular inflammation was observed during long-term follow-up. In the Phase 2 ALTITUDE study, a single suprachoroidal dose in patients with non-proliferative diabetic retinopathy produced durable benefits through 2.5 years. More than half of participants achieved a greater than two-step improvement on the Diabetic Retinopathy Severity Scale without additional treatment, while 70% experienced no vision-threatening events. No intraocular inflammation was reported.

On the Move

H. Lundbeck A/S has appointed **Tarek Samad** as executive vice president and head of Research & Development, effective 1 September 2026. Dr Samad succeeds Johan Luthman who has decided to retire and who will remain with Lundbeck until the end of 2026 to ensure the handover and strategic continuity. During Dr Luthman's tenure, R&D delivered successful new products and lifecycle management across global markets to strengthen Lundbeck's focus on neuroscience. Dr Samad is currently global head of research and corporate patents and has led Lundbeck's research organisation since 2021. Dr Samad has a PhD, and Masters in genetic engineering and biology and molecular and cellular biology from the University of Strasbourg, France.

Camena Bioscience Ltd has appointed **Gregory P. McGuinness** as chief executive officer to support the company's drive to commercialise a platform for AI-driven antibody discovery, and operational scaling. Mr McGuinness brings 30 years of executive and operational expertise to the field. He was most recently CEO at Inanovate Inc and was also CEO/co-founder of TwiXimo Therapeutics Inc. Other previous senior positions include chief commercial officer at Genturi Inc and VP of business development at DNA Electronics Ltd.

Genopore Ltd, an Israeli start-up which is developing a semiconductor-based optical nanopore platform for protein molecule identification, has appointed **Rey Mali** as chief executive officer. Ms Mali joins the company from Accellix Inc, where she directed corporate strategy and ultimately helped lead the business through its acquisition by bioMérieux. Previous roles included director of product marketing at Twist Bioscience Corp. She holds an MBA from the Haas School of Business at the University of California, Berkeley, US and an MSc in molecular biology and immunology from Ben Gurion University, Israel.

Simris Group AB has appointed **Andreas Pahl** as chief executive officer of Simris Biologics GmbH, its wholly owned subsidiary in Berlin, Germany. Professor Pahl will lead the advancement of the Microcystin platform at the antibody-drug conjugate developer and help shape future development programmes. Most recently, Prof Pahl was CEO of Heidelberg Pharma AG, having previously held the position of chief scientific officer. Previously he held senior positions at Nycomed A/S and Takeda Pharmaceuticals.

ViCentra BV has appointed **Ian Wells** as chief financial officer and Thomas A. West as an independent director on its board. The executives will support expansion of the company's proprietary insulin patch pump system across Europe and into the US, after the scale up of commercial manufacturing capabilities. Mr Wells, with nearly two decades of finance leadership in regulated medical technology, most recently was global chief financial officer of HOYA Vision Care.

Exonate Ltd has appointed **Olav Hellebø** as chief executive officer to strengthen its executive team and advance towards major clinical and corporate milestones, including a Phase 2b clinical trial of the company's lead candidate EXN407 for diabetic eye disease. Mr Hellebø brings business and scientific experience in the global pharmaceutical and biotechnology sectors. Previous roles include as CEO of ReNeuron Group Plc when he in-licensed a retinitis pigmentosa programme from Schepens Eye Research Institute and completed equity financings of $125 million. Other senior roles were at Schering-Plough (now Merck) leading the US biotech and oncology business unit, chief operating officer of Novartis UK and president of immunology at UCB.

Rentschler Biopharma SE, a contract development and manufacturing organisation for biopharmaceuticals, has appointed **Torsten Woehr** as chief executive officer effective 1 August 2026. With more than 25 years' experience in the international CDMO and biotechnology industry, combining commercial and operational expertise, Dr Woehr was most recently chief commercial officer of Bachem Group.

Sanofi SA has appointed **Paulo Fontoura** as global head of research & development pharma, effective 1 September 2026. The neurologist and physician-scientist will join Sanofi's executive committee and will lead research, translational medicine, clinical development and regulatory affairs as Sanofi advances its R&D activities and pipeline of new medicines. Dr Fontoura has experience in medicines' development, with his teams contributing to the development of over 60 new molecular entities, leading to over 20 US and EU approvals including breakthrough therapies in neuroscience, rare diseases, immunology and ophthalmology.

Herantis Pharma Plc has appointed **Juha Savola** as chief medical officer as the company advances its therapy, HER-096, to stop the progression of Parkinson's disease. Dr Savola brings more than 25 years of global drug development, with a track record of guiding therapies from clinical development through regulatory approval and commercialisation. Most recently, he was vice president, clinical development at Spark Therapeutics where he led clinical development programmes across ophthalmology and neurology. Previously Dr Savola held senior leadership roles at Teva Pharmaceutical Industries Ltd, F. Hoffmann-La Roche, Santhera Pharmaceuticals Holding AG and Juvantia Pharma Ltd.

Sofinnova Partners has appointed **David Evans** as a London, UK-based partner, bringing clinical, scientific and investment expertise to the group. Dr Evans joins the European venture capital firm from the Roche Venture Fund, where his most recent role was senior investment director. He will play a key role in late-stage private and public life-sciences investments within Sofinnova's Crossover Strategy. Prior to his investment career, Dr Evans held senior drug development roles at Roche and Bristol Myers Squibb Co, and worked at Eli Lilly and Co at affiliate level.

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