Tomorrow's Affairs
Analysis of today
Assessment of tomorrow

By: Tomorrow's Affairs Staff

Anthropic will profit from medicine long before it cures any disease



Dario Amodei, founder and chief executive of Anthropic, said in a 10 November video presentation to prospective shareholders that cancer, Alzheimer's disease, heart disease and mental illness could become "relics of the past" in less than a decade.

He presented this forecast as his personal expectation during the stock market offering, even though Anthropic's most advanced drug development projects have not yet reached human trials.

For investors, that promise is currently worth only as much as Anthropic makes from selling software to pharmaceutical companies.

In the offer, new company shares and some shares already owned by existing shareholders are being sold at $70 to $78 per share and could raise up to $64.4 billion in total, making it the largest stock market offering in history.

At the highest suggested price, all existing shares would be worth a combined $1 trillion. Including the shares that employees and investors have the right to acquire later on pre-agreed terms, the company's value reaches about $1.4 trillion.

Trading on Nasdaq is expected to begin on 19 November, and the final price has not yet been determined.

These valuations cover Anthropic's entire business, while public filings do not show how much of that value investors attribute to future medical breakthroughs.

Where Anthropic can already make money in medicine

On 27 October, Anthropic announced collaborations with six drug-development organisations, including Bristol Myers Squibb, Generate Biomedicines and Enveda, as well as the acquisition of Mithril Medicine.

Claude, Anthropic's artificial intelligence system, is already being used to process research data, prepare documentation and help to design potential therapies.

Anthropic can already charge for these services, whereas earnings from its own drugs depend on successful clinical trials and regulatory approval for sale, which require years of work and significantly larger investments.

In Enveda's test, Claude reviewed 1,061 pages of production documentation and identified all 11 irregularities previously found by human inspectors, as well as seven additional ones they had missed. Human review time was reduced from more than 25 hours to less than three.

A first draft of a document for regulatory authorities was prepared in four hours; Enveda stated that it had previously spent about three months on this work. The final check was still carried out by experts.

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The data comes from the participants in the collaboration themselves and relates to administrative tasks, but the pharmaceutical company has a clear incentive to pay for software that consistently delivers these savings.

In the third quarter, Anthropic generated $17 billion in revenue, up from $1.4 billion in the same period last year. Operating expenses still exceeded revenue, and the company recorded an operating loss of $567 million, partly because of the expensive computing power it leased on a short-term basis.

In the document it submitted to the US Securities and Exchange Commission on 10 November, before going public, the company states that it has committed to pay $900.9 billion in the coming years, almost entirely for computer infrastructure, primarily data centres and chips, of which $70.7 billion is to

be paid by the end of September 2027.

A company that has made such commitments must reassure investors that its revenues will grow for years, and talk of new markets, including medicine, is part of that effort.

How far therapy research has come

In collaboration with the US biotech company Generate Biomedicines, Claude Code, Anthropic's tool for writing and executing programme code, helped modify part of the genetic instructions for CAR-T therapy, in which a patient's immune cells are adapted to recognise and attack cancer.

This procedure is already successful in certain forms of leukaemia and lymphoma, but its application to solid tumours, such as those that arise in the lungs or breast, is much more complex, and this research focuses on these tumours.

One version of that gene, designed by the scientists with Claude's help, was about 70 per cent shorter than the standard one.

In the laboratory, immune cells with that version of the gene produced around 10 times more tumour-recognising receptors, destroyed malignant cells more efficiently, and remained active for longer.

The shorter gene leaves room for other properties to be added to the cells to adapt the therapy to those obstacles, but this has yet to be proven.

Solid tumours are a more difficult target because cells within the same tumour can differ from one another, and immune cells do not recognise some of them. The markers used by therapies to identify cancer often also exist on healthy cells, causing immune cells to attack healthy tissue.

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The tumour also creates a surrounding environment that weakens immune cells and makes it difficult for them to reach it. The shorter gene leaves room for immune cells to be given additional properties to help them overcome these obstacles.

With the acquisition of Mithril Medicine, a company previously run solely by its founder, Anthropic began developing its own therapies for rare forms of muscular dystrophy, a group of inherited diseases that gradually weaken the muscles.

With Claude's help, the founder coordinated work with 11 external laboratories and, in less than 18 months, obtained promising results in mice. The first drug candidate could be ready for human trials by the end of 2028 at the earliest, if further research is successful.

Between the laboratory result and the available drug lie tests of safety, appropriate dosing and effectiveness in humans. In later stages, the benefit–risk ratio is evaluated, often by comparison with existing treatments.

Artificial intelligence can accelerate candidate selection, study preparation and result processing, but evaluating the success of a therapy requires monitoring real patients, whose follow-up duration depends on the disease and the expected effect of the drug.

When does Amodei's 10 years actually begin?

In October 2024, Amodei wrote about the radical acceleration of medicine in the essay "Machines of Loving Grace". He hypothesised that a particularly powerful future artificial intelligence could compress 50 to 100 years of advances in biology and medicine into five to 10 years.

At the same time, he linked the start of that period to the emergence of a system whose capabilities have yet to be realised, and emphasised that this is a speculative assessment. In the November presentation to investors, however, the deadline sounded as if it was already in effect.

Anthropic research published on 5 November shows how much manual labour can limit such acceleration. The company envisaged a situation in which artificial intelligence performs all the research work except for the physical labour in the laboratory, which remains the responsibility of humans.

> Amodei's promise encompasses too many different diseases at once

With the same budget, biologists and chemists would in that case achieve three to four times more than today, because they would no longer have to carry out the experiments in the laboratory themselves.

In computer science and statistics, where almost all work is done on a computer, performance could be 15 to 16 times higher.

Amodei's promise encompasses too many different diseases at once. More than 100 conditions with distinct causes and treatments are grouped under the name cancer, and mental disorders are even more diverse.

A drug that helps one form of cancer usually does not work on others, and even major progress in specific areas does not provide a basis for predicting when all these diseases will become a thing of the past.

Who will profit from medicines developed with the help of Claude?

Even if artificial intelligence significantly accelerates the discovery of successful therapies, it is unclear how much of the profit will go to Anthropic. Its pharmaceutical partners provide data and laboratories, hire experts, and fund trials.

Bristol Myers Squibb, for example, uses Claude to evaluate early clinical research plans and select next steps. Most of the profits from a successful drug will probably remain with the pharmaceutical companies that hold the patents, control the clinical trial data and finance the development.

Anthropic will primarily charge for its technology in such partner programmes, unless it contracts to secure a share of the drug's future sales.

> The sustainability of income from the core business is a more reliable subject of financial analysis than the potential share of sales from drugs that do not yet exist

Published accounts of the collaboration do not disclose fees, patent rights or future earnings-sharing arrangements. If Anthropic successfully develops its own therapy and retains the rights to sell it, it could generate revenue from the drug itself, despite significantly higher costs and longer development times.

A discovery can have enormous value for patients and healthcare systems, but this does not necessarily translate directly into profit for the shareholders of the company that supplied part of the technology.

In the early days, as banks collected investor orders, demand for the stock was strong, but investors are divided on how long Anthropic can maintain its edge over competitors.

For now, the sustainability of income from the core business is a more reliable subject of financial analysis than the potential share of sales from drugs that do not yet exist.

What investors will be looking for in the next two years

Over the next two to three years, the majority of Anthropic's medically related revenue is likely to come from software sales and research services.



An expansion of its cooperation with Bristol Myers Squibb will show whether Claude can take on more work in therapy development

An expansion of its cooperation with Bristol Myers Squibb, planned for 2027, will show whether Claude can take on more work in therapy development, while the possible start of Mithril's human trials in late 2028 would mark only the beginning of that programme's clinical validation. None of these steps alone will confirm Amodei's deadline.

The stock market will soon look for evidence that revenue growth can cover the costs of computing infrastructure and generate sustainable profits.

If that evidence is missing, the medical promoters will find it increasingly difficult to justify the current valuation, regardless of the progress of individual laboratory projects.

Anthropic's entry into the pharmaceutical industry makes business sense, even with much more modest medical achievements than its founder has announced.

Investors who buy shares from 19 November will also be paying for software that pharmaceutical companies already use and for the hope of drugs that no one has yet seen, only the first of which can be measured today. The end of cancer cannot be booked in advance as future income.