

AstraZeneca
&
Fusion Pharmaceuticals
Acquisition Report

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1. Backgrounds

1.1 Introduction of the Acquiring Companies

1.1.1 AstraZeneca

AstraZeneca plc. is a major Anglo-Swedish biopharmaceutical joint venture formed on 6 April 1999 by the merger of Astra AB (Sweden) and Zeneca Group PLC (UK). AstraZeneca develops, manufactures and markets pharmaceuticals and vaccines for treating gastrointestinal, cardiovascular, oncology, central nervous system and respiratory diseases, as well as anaesthesia.

As one of the world's biopharmaceutical giants, AstraZeneca has a number of core businesses with unique corporate advantages that will enable it to develop over time. **Firstly**, AstraZeneca has a strong commitment to oncology, has invested significant R&D resources, and gained extensive experience in cancer treatment. Its product covers a wide range of tumour types, including lung, breast and ovarian cancer, and it continues bringing innovative medicines to market. **Secondly**, AstraZeneca has made significant progress in the field of immuno-oncology therapy, and its drugs such as PD-L1 inhibitors have strong competitiveness in the market. **Thirdly**, AstraZeneca is actively promoting the development of precision medicine and providing personalised treatment plans for patients through genomics and other technologies.

On one hand, there are many other strong giants in the same biopharmaceutical space, such as Johnson & Johnson, a diversified healthcare company with businesses in a wide range of areas, including pharmaceuticals, medical devices and consumer health. AstraZeneca, **on the other hand**, is more focused on biopharmaceuticals than Johnson & Johnson, particularly in oncology treatments. **Meanwhile**, Johnson & Johnson is strong in medical devices and consumer health, while AstraZeneca excels in innovative drug development.

When the biopharmaceutical sector is further subdivided to focus on oncology, AstraZeneca has even more unique advantages. **The fourth point** is its comprehensive strength. AstraZeneca is a comprehensive biopharmaceutical company with rich experience and extensive product lines in the field of cancer treatment. It has assets in many areas, such as traditional small-molecule drugs, biologics and immunotherapy, which enables AstraZeneca to offer patients more comprehensive treatment solutions. **Finally**, as a company with a humanistic approach, AstraZeneca has a patient-centred philosophy that puts patients' needs first and is committed to developing medicines that can improve their quality of life. In addition to developing and manufacturing medicines, AstraZeneca is committed to corporate citizenship, working to improve global public health, supporting medical education and participating in various charitable activities.

Compare this with Juno Medical, which is a biotech company focused on cell therapy, with its core technology being CAR-T cell therapy. In contrast, AstraZeneca has a more **diversified product line** in oncology. AstraZeneca has a strong advantage in traditional oncology therapeutics, while Juno Medical has a first-mover advantage in cell therapy. **Meanwhile**, Juno Medical's commercialisation capabilities are relatively weak, while AstraZeneca has extensive commercialisation experience.

1.1.2 Fusion Pharmaceuticals

Fusion Pharmaceuticals is a **biotechnology company** focused on the development of **novel radiopharmaceuticals**. By combining radioisotopes with antibodies that target tumour cells, these drugs can locate and destroy cancer cells with high specificity and efficacy.

Like AstraZeneca, Fusion Pharmaceuticals has core technologies and strengths that were uniquely suited to AstraZeneca's acquisition.

The first is the radionuclide-coupled drug platform. Having precisely targeted a patient's cancer cells, Fusion can use a powerful radionuclide-coupled drug platform that allows them to combine a variety of radioisotopes with different antibodies, and the targeted drug is linked to the platform to target different tumour types.

Then there is the core competence of Fusion Pharmaceuticals - Target Alpha Precision Targeting. Target Alpha is how the whole therapeutic system works (Figure 1.1.2.1). Its drugs are able to precisely target tumour cells, reducing damage to healthy tissue, thereby increasing treatment efficacy and reducing side effects. Fusion is taking advantage of medical alpha isotopes to develop targeted alpha therapies. Targeted molecules, such as antibodies, and powerful alpha-emitting medical isotopes are used to precisely and effectively induce cancer cell death. Because alpha particles can only travel a short distance, they can confine the radiation to the tumour, and Fusion's proprietary **Fast-Clear™** bonding technology facilitates the rapid clearance of medical isotopes that are not specifically bound to cancer cells. The Fast-Clear™ linkage (the 'connector' between the molecule and the medical isotope) is designed to remove more medical isotopes at a faster rate than commercial technologies, thereby expanding the therapeutic window. Fusion has a library of proprietary linkages to optimise the efflux pathways and kinetics of different targeted molecules. Given the power and versatility of the Fast-Clear™ linker technology, Fusion is applying it to a range of molecules and classes of molecules (antibodies, small molecules, etc.).

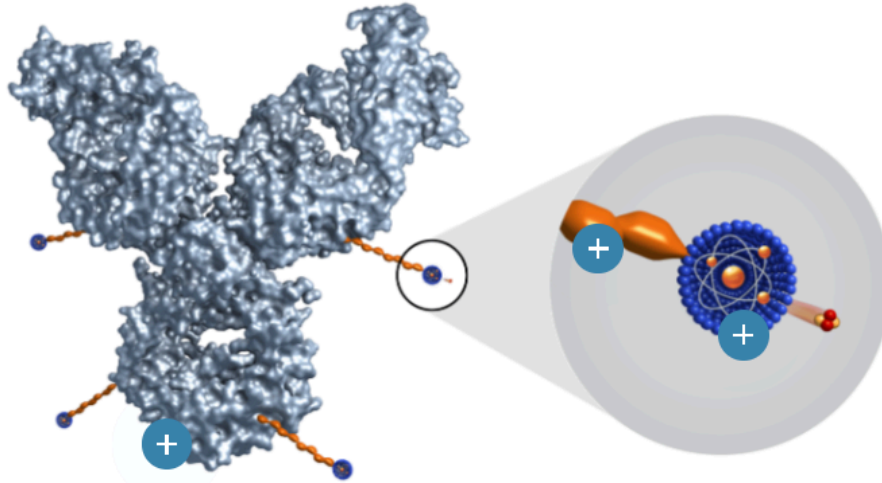


Figure 1.1.2.1 Fusion Pharmaceuticals Target Alpha Precision Targeting Works

Data source: official Fusion Pharmaceuticals website

Fusion's drugs represent a new direction in cancer treatment and have the potential to change the way certain cancer patients are treated. By briefly describing Fusion Pharmaceuticals' core competencies, readers will also be able to see where the company's key values lie. **Firstly**, they fill a gap in the medical field by providing a new treatment option for cancer patients who have not responded well to traditional therapies. **Secondly**, the introduction of new biologically targeted technologies into drug discovery and clinical trials has the potential to significantly improve patient survival rates in the future due to their high degree of specificity and efficacy. **Finally**, by reducing side effects, Fusion's medicines can improve patients' quality of life.

Taking this a step further, it is not difficult to analyse the reasons why Fusion Pharmaceuticals is attracting so much attention in the global biopharmaceutical market.

- **Huge market for oncology treatments:** Oncology treatments are one of the largest growth areas in the global pharmaceutical market, and Fusion's innovative medicines have huge potential in this market.
- **Technological innovation:** Radionuclide-coupled drugs are an emerging oncology treatment and represent the latest advancement in the field of oncology treatment.
- **Acquisition by a major pharmaceutical company:** In 2021, Fusion Pharmaceuticals was acquired by global pharmaceutical giant AstraZeneca, which is further evidence of its technology and market prospects.

Given that Fusion Pharmaceuticals has been successfully acquired by AstraZeneca in 2021, it is also poised for more robust growth in the future, backed by strong financial flows. Moving forward, Fusion Pharmaceuticals will aggressively advance the clinical development and commercialisation of its drugs, launching more innovative drugs to treat more tumour types. As Fast Clear's technology continues to

evolve, it is expected to drive the growth of the entire radionuclide-coupled drug industry.

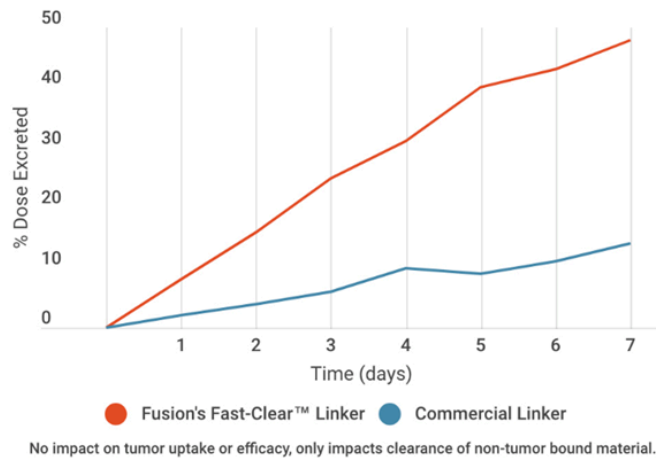


Figure 1.1.2.2 Comparative data on discharged doses of Fusion Pharmaceuticals' Fast Clear technology versus commercial technology over time

Data source: Fusion Pharmaceuticals website

1.2 Industry Research Analysis

1.2.1 Biomedical Industry

The biomedical industry is a knowledge-intensive industry, constantly generating and adapting to new technologies. It is characterised by **innovation, ingenuity and a constant search for new challenges.**

The biopharmaceutical industry can be divided into **four** sectors:

1. **The pharmaceutical industry:** biopharmaceuticals are medicines produced from biological sources (usually living cells) using biotechnology, including vaccines, blood proteins, gene therapy and monoclonal antibodies, with uses including the treatment and prevention of cancer, autoimmune diseases and the management of diabetes;
2. **The biotechnology industry:** also known simply as bioengineering, has enormous potential to create new industries and sources of employment, covering everything from human genetics to environmental protection, and includes the development of new diagnostic tools, treatments and therapies to improve health;
3. **Medical Technology (or Medical Device and Diagnostic Industry):** The Diagnostic and Scientific Instrumentation Industry is the industry that manufactures medical devices used to detect or measure biological or chemical conditions that correspond to disease, medical conditions, or fetal development, to aid in the detection and monitoring of disease, the

assessment of risk and genetic traits, and the identification of disease-causing substances present in blood or urine;

4. **Healthcare information technology:** Healthcare information technology is the discipline of using computer science and communications technology to collect, store, retrieve, analyse and share healthcare information to improve patient care, operational efficiency and decision support, and encompasses a wide range of technological applications from electronic health records (EHRs) to telemedicine and the Internet of Things in healthcare.

Governments around the world have recognised the economic value of the biomedical industry and are investing heavily in the sector to encourage innovation and support local companies. The European Commission predicts that biotechnology will create 3 million jobs in Europe over the next decade and generate up to \$500 billion in annual revenues in Europe alone.

Before 1980, European companies dominated the industry, both in terms of market share and the ability to develop and produce innovative new products. Historical advantages and an enviable concentration of resources fuelled the success of German, French, British and Swiss companies. Japan was also present in the industry. **But from the 1980s onwards, the US leapt to the forefront of biopharmaceutical innovation.** Innovative leaps in biopharmaceutical research, medical devices and diagnostics gave the US a major advantage that it maintains today.

The UK launched the Innovation Investment Fund in 2009. The fund aims to support promising technology-based businesses, particularly in the life sciences and cleantech sectors. The government has invested \$231.8 million and is seeking additional funding from the private sector. It hopes to create Europe's largest technology fund, which could be worth up to \$1.5 billion over its 12 to 15 years life. In 2010-2011, the UK government invested around \$2.63 billion in health and biomedical research, mainly through the Medical Research Council and the National Institute for Health Research. The government is supporting stakeholders to establish a \$927 million UK Medical Research and Innovation Centre.

According to the US Bureau of Labor Statistics, private-sector employment in the US biopharmaceutical industry was 1,129,200 in 2009 (Table 1.2.1.1). Broken down into three major segments, there were 283,700 jobs in the biopharmaceutical industry, 409,200 jobs in the medical device industry (including diagnostics), and 526,300 jobs in the related research, development, testing and laboratory industry. The industry directly generates \$96 billion in wages and \$213.2 billion in output. The average wage in the US biopharmaceutical industry is \$78,600, which is **more than 70%** higher than the national average. When all the ripple effects of the biopharmaceutical supply chain are taken into account, the industry supports 5.3 million jobs, or 4% of US non-farm payrolls. Each biopharmaceutical job supports 3.3 jobs in other industries. The top five global pharmaceutical companies are listed in Table 1.2.1.2. The United States is the largest pharmaceutical market, accounting for about 35% of

the global market, and is a world leader in biopharmaceutical research and development. More than 7,000 new drugs are in development worldwide, of which approximately 3,500 compounds are currently being researched in the US. The US pharmaceutical industry employs more than 854,000 people.

Industry	Employment	Wages, US\$B	Outputs, US\$B
Biopharmaceuticals	283,700	\$29.0	\$82.4
Medical devices and equipment	409,200	\$26.5	\$66.2
Research, testing and medical labs	526,300	\$40.3	\$64.5
Total biomedical	1,219,200	\$95.9	\$213.2

Sources: Bureau of Labor Statistics, Moody's Analytics, Milken Institute.

Table 1.2.1.1 Size of the U.S. Biopharmaceutical Industry, 2009

Source: U.S. Bureau of Labour Statistics, Moody's Analytics, Milken Institute.

Top Five Pharmaceutical Companies	Country of Origin	2014 Revenue (\$ billion)
Johnson & Johnson	U.S.	\$70.8
Norvartis	U.S.	\$61.1
Roche	Switzerland	\$45.5
Pfizer	U.S.	\$40.3
Sanofi-Aventis	France	\$40.0
Total		\$257.7

Table 1.2.1.2 Revenues of the top five pharmaceutical companies

Data Source: Being a Biomedical Entrepreneur

The medical device industry is one of the largest healthcare industries, driven by innovation and new technologies. The past decade has seen unprecedented growth in innovative and improved technologies, leading to the development of state-of-the-art medical devices and catalysing the growth and advancement of the healthcare industry. The US Department of Commerce (DOC) estimates that global medical device sales in 2015 were \$344 billion, of which the US accounted for approximately \$148 billion. The 2014 revenues of the top 20 global companies are shown in Table 1.2.1.3 The device market is dominated by US companies.

Company	Country of Origin	2014 Revenue (\$ billion)
1. Johnson & Johnson (Devices)	U.S.	\$27.5
2. GE Healthcare	U.S.	\$18.3
3. Medtronic	U.S.	\$17.0
4. Baxter International	U.S.	\$16.7
5. Siemens Medical Solutions	Germany	\$15.8
6. Philips Medical Systems	Netherlands	\$11.2
7. Cardinal Health	U.S.	\$11.0
8. Covidien	U.S.	\$11.7
9. Abbott Laboratories	U.S.	\$10.1
10. Stryker	U.S.	\$9.7
11. Danaher	U.S.	\$9.4
12. Becton Dickinson	U.S.	\$8.5
13. Boston Scientific	U.S.	\$7.4
14. Essilor	Switzerland	\$6.9
15. Alcon	U.S.	\$6.6
16. B. Braun	Germany	\$6.6
17. Fresenius AG	Germany	\$6.0
18. St. Jude Medical	U.S.	\$5.6
19. 3M Healthcare	U.S.	\$5.6
20. Olympus	Japan	\$4.8
Total		\$216.4

Table 1.2.1.3 Top 20 Companies in the World in Biomedical Sector

Data source: Being a Biomedical Entrepreneur

1.2.2 Cancer Treatment

AstraZeneca and Fusion Pharmaceuticals both operate in the oncology therapeutic segment of the biopharmaceutical industry. Oncology is an important part of the biopharmaceutical industry and the two are closely intertwined and related. The diagnosis, treatment and prevention of tumours are all part of biopharmaceutical research. The results of biomedical research, such as the development of new drugs and gene therapy, are directly applied to the treatment of tumours. The complexity of tumours has led to a deepening of biomedical research and has stimulated basic research and technological innovation in the field of biomedicine.

A wide range of cancer therapies are available to treat many different types of cancer, each of which requires specific treatments. Treatments include surgery, chemotherapy, radiotherapy, hormone therapy, targeted therapies (including small molecule drugs or monoclonal antibodies) and PARP inhibitors (e.g. olaparib). Other therapies include heat therapy, immunotherapy, photodynamic therapy and stem cell therapy. The most common cancer treatment is a series of individual therapies, such as chemotherapy before surgery. Sometimes angiogenesis inhibitors are used to increase the effect of immunotherapy.

The choice of treatment depends on the location and grade of the tumour, the stage of the disease and the patient's general condition. Biomarker tests can help identify the type of cancer and indicate the best treatment. Many experimental cancer treatments are being developed all the time. It was estimated that by 2023, one in five people would be diagnosed with cancer at some point in their lives. The main goal of cancer treatment is to remove the cancer completely, thereby curing it or significantly prolonging the patient's life. Palliative care is needed when the prognosis is poor and the cancer is at an advanced stage. There are many types of cancer, many of which can be successfully treated if detected early.

Although the oncology industry has evolved over the years, it still faces significant challenges due to the incurable nature of the disease and its increasing prevalence.

- **Tumour heterogeneity:** Cancer cells vary greatly within the same tumour, making treatment difficult.
- **Drug resistance:** Tumour cells can easily develop resistance to therapeutic drugs, reducing the effectiveness of treatment.
- **Side effects:** Most cancer treatments are associated with serious side effects that affect patients' quality of life.
- **Recurrence and metastasis:** Tumour cells are highly invasive and metastatic and may recur or metastasise even after treatment.

By reviewing and analysing the current oncology treatment industry, it is not difficult to see its possible future development trend.

- **Precision medicine:** By sequencing the genome of a tumour, the molecular characteristics of the tumour can be determined so that a personalised treatment plan can be developed for the patient.
- **Immunotherapy:** Immunotherapy is one of the hottest areas of research in oncology and is expected to revolutionise cancer treatment.
- **Combination therapy:** Combining multiple therapies to improve efficacy and reduce side effects.
- **Liquid biopsy:** Early detection and monitoring of tumours by detecting tumour cells or tumour DNA in the blood.

2. Overview of the Acquisition Process

2.1 Timeline Overview

- **December 26, 2023**
AstraZeneca announces the acquisition plan
AstraZeneca announces its plan to acquire Fusion Pharmaceuticals Inc. to further advance its strategic objectives in the oncology field.
- **March 31, 2024**
Fusion balance sheet data cutoff date
The balance sheet data of Fusion shows that, as of this date, the total amount of cash, cash equivalents, and short-term investments was \$211 million.
- **June 3, 2024**
Calculation of transaction value
Based on the exchange rate of the Bank of Canada on the day, the per-share transaction price was calculated as CAD 32.72, with a total transaction value of CAD 2.804 billion.
- **June 2024**
Acquisition completion
AstraZeneca, through its wholly-owned indirect subsidiary 15863210 Canada Inc., completed the acquisition of Fusion. Fusion became a wholly-owned subsidiary of AstraZeneca, with operations covering Canada and the United States.
- **August 31, 2024**
Contingent milestone payment deadline
Before this date, if specific regulatory milestones are met, AstraZeneca will pay an additional contingent value right (CVR) of \$3.00 per share.

2.2 Transaction Structure and Financial Details

2.2.1 Acquisition Terms

According to the final agreement terms, AstraZeneca will acquire all issued shares of Fusion Pharmaceuticals for **\$21.00 per share in cash** through its subsidiary. Additionally, a non-tradable contingent value right of **an additional \$3.00 per share** will be paid upon meeting certain regulatory milestones. The total transaction value is approximately \$2.4 billion, representing a **126%** premium over Fusion's closing price on March 18, 2024.

2.2.2 Cash and Asset Acquisition

As part of the transaction, AstraZeneca will also acquire Fusion's cash, cash equivalents, and short-term investments, totalling \$234 million. These funds will support Fusion's continued R&D and commercialization activities under

AstraZeneca, ensuring the smooth progression of new products. This acquisition is expected to have a short-term impact on AstraZeneca’s financial statements, especially in cash flow and the balance sheet. **However**, in the long term, integrating Fusion’s R&D capabilities and product pipeline is expected to improve AstraZeneca’s profitability in the oncology market and create greater value for shareholders.

2.3 Reasons for the Acquisition

2.3.1 Strengthening the Oncology Portfolio

Through this acquisition, AstraZeneca can incorporate Fusion Pharmaceuticals' Radiopharmaceutical Conjugates (RCs) pipeline, especially its most advanced FPI-2265, into its existing oncology portfolio. This will provide AstraZeneca with more targeted and innovative treatment options in cancer therapy, enhancing its competitiveness. FPI-2265 is a PSMA-targeted radiopharmaceutical based on Actinium-225, emitting high-energy alpha particles that can effectively kill cancer cells at short distances while minimizing damage to surrounding healthy tissues. Early clinical trial results in patients with metastatic castration-resistant prostate cancer (mCRPC) have shown significant therapeutic potential, especially in patients who have previously received radiopharmaceutical treatments based on Yttrium-90, demonstrating good efficacy and tolerance. Despite the high cost of this acquisition, AstraZeneca stated that it represents a significant step forward in its oncology portfolio.

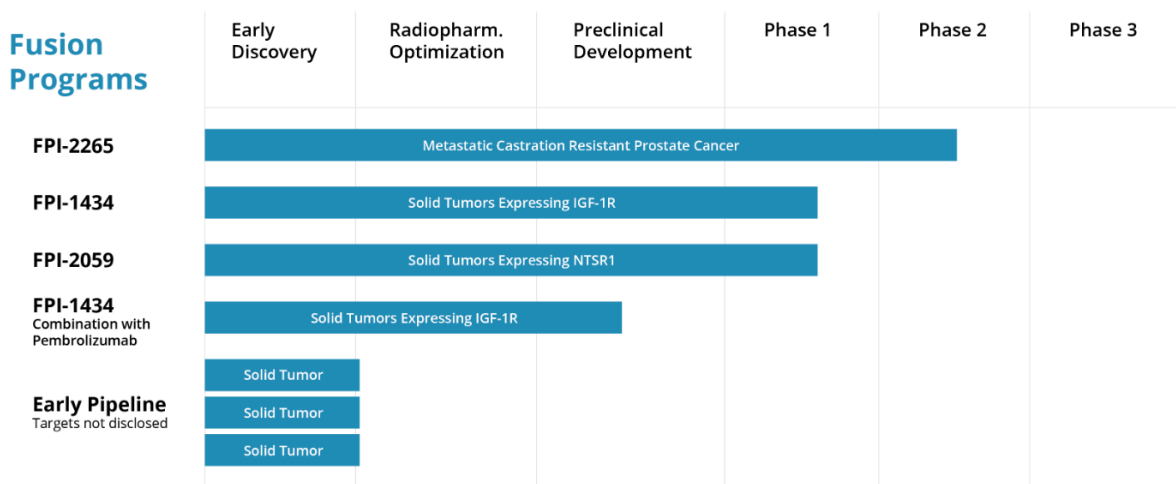


Figure 2.3.1.1 Comparison of FPI-2265 and other Fusion programs

Data Source: Fusion Pharmaceuticals

2.3.2 Consolidating Presence in Canada

This acquisition not only strengthens AstraZeneca’s business in the U.S. but also further consolidates its presence in Canada, demonstrating its commitment and

long-term plans for the Canadian market. The Greater Toronto Area and southern Ontario have world-class universities, hospitals, and research centres, along with a rich pool of scientific talent. AstraZeneca has highly praised Ontario's life sciences strategy and its commitment to expanding local biomanufacturing and promoting local innovation to improve healthcare. Additionally, the federal government's biomanufacturing and life sciences strategy further strengthens Canada's position as a globally competitive player, with an integrated research ecosystem focused on delivering cutting-edge science and innovation. AstraZeneca employs over 1,200 people in Canada, primarily located at its headquarters and clinical research centre in Mississauga, Ontario. The company is one of the leading contributors to R&D in Canada, investing CAD 135.6 million in Canadian R&D in 2021. AstraZeneca was recognized as the Best Workplace Culture by the Canadian Human Resources Awards in 2022 and has been named one of the Greater Toronto Area's Top Employers for nine consecutive years.

2.4 Statements from Company Executives

“Today, 30% to 50% of cancer patients receive radiation therapy during treatment, and acquiring Fusion further advances our goal of transforming this field of care with next-generation Radiopharmaceutical Conjugates. Partnering with Fusion allows us to accelerate the development of FPI-2265 as a potential new treatment for prostate cancer and to utilize their innovative Actinium-225 platform to develop Radiopharmaceutical Conjugates as foundational therapy options,” said Susan Galbraith, Executive Vice President of Oncology Research and Development at AstraZeneca, in a press release.

“This acquisition brings together Fusion's expertise and capabilities in Radiopharmaceutical Conjugates, including our industry-leading radiopharmaceutical R&D, pipeline, manufacturing, and Actinium-225 supply chain, with AstraZeneca's leadership in small molecule and biologics engineering to develop new Radiopharmaceutical Conjugates. Based on our existing collaboration with AstraZeneca, we have advanced FPI-2068 (EGFR-cMET targeted Radiopharmaceutical Conjugate) into Phase I clinical trials, which gives us a unique opportunity to accelerate the development of the next generation of Radiopharmaceutical Conjugates, aiming to improve patient outcomes,” added Fusion CEO, John Valliant.

3. Acquisition impact

3.1 Changes in the corporate structure

Following AstraZeneca's acquisition of Fusion Pharmaceuticals, Fusion became a wholly-owned subsidiary of AstraZeneca and continues to operate in Canada and the United States. This change strengthens AstraZeneca's position in the North American market, particularly with the expansion of its business in Canada, demonstrating its long-term commitment to this market. The following is a detailed analysis of the changes in the corporate structure:

3.1.1 Independent operation

Although Fusion became a subsidiary of AstraZeneca, it maintained some operational independence in the area of radiopharmaceutical development.

This arrangement helps protect Fusion's ability to innovate from the inefficiencies or diminishment of innovation that can occur during the integration of large companies. Operating independently means that Fusion is able to continue to advance radiopharmaceutical research and development based on the specific requirements of its area of expertise and a culture of innovation. However, this independence is relative and Fusion's operational strategy still needs to be aligned with AstraZeneca's overall objectives. This could involve reallocating resources, such as prioritising projects that create synergies with AstraZeneca's existing product portfolio. In addition, Fusion may make changes in its development direction to align with AstraZeneca's long-term strategic objectives. These changes may include reassessing project priorities, optimising resource allocation, and adjusting the schedule and budget of research and development projects to ensure their development is aligned with AstraZeneca's global strategy.

3.1.2 Management integration and retention

AstraZeneca did not replace its management team immediately after acquiring Fusion, a strategy often seen as an effective means of maintaining business continuity. Retaining Fusion's existing management will not only leverage their expertise and industry experience in radiopharmaceuticals but also maintain employee morale and team stability. This approach helps to avoid the risk of employee unrest and turnover that may occur after the acquisition, thus ensuring a smooth transition and continued development of the business. As part of the integration process, AstraZeneca may gradually integrate Fusion's management processes with its global management structure to achieve greater operational efficiency and better strategic execution. This integration may also include regular

senior management exchanges and training to ensure that Fusion's leadership team understands and can execute AstraZeneca's global strategic direction.

3.1.3 Financial integration

As a wholly-owned subsidiary of AstraZeneca, Fusion's financial structure will be adjusted to comply with AstraZeneca's overall financial reporting standards and internal control requirements. **This kind of integration is not only a formal financial merger but more importantly, the promotion of financial transparency and the optimization of cost control through integration.** Fusion will need to adopt AstraZeneca's financial systems and budgeting processes, which could include a more rigorous approval process for project funding, more refined budgeting, and increased frequency of financial reporting. These measures help ensure that Fusion's R&D and commercial activities are closely aligned with the parent company's strategic objectives and generate higher financial returns for shareholders.

3.1.4 Integration of R&D resources

AstraZeneca plans to integrate Fusion's research and development team into its global research and development network to optimise the allocation of resources and accelerate the development of new drugs. This integration not only helps share technology and knowledge but also reduces R&D costs and time through an integrated R&D pipeline. This integration process will focus on the following areas:

- **Oncology portfolio Enhancement:** With the acquisition of Fusion, AstraZeneca's portfolio in radio-coupled drugs (RCs) has been significantly enhanced. This move puts AstraZeneca in a stronger position in the global oncology market to offer more diverse and innovative treatment options. In the area of precision radiotherapy in particular, this expansion will help AstraZeneca further establish its market-leading position.
- **Integration of key R&D programs:** The acquisition consolidates several of Fusion's key R&D programs, particularly FPI-2265, which targets potential new therapies in the area of metastatic castration-resistant prostate cancer (mCRPC). By integrating these programs, AstraZeneca will not only be able to more effectively advance the development of new therapies but will also be able to integrate these programs into its broader R&D strategy to drive future innovation and market expansion in oncology.
- **Expanding its R&D pipeline:** AstraZeneca further expands its R&D pipeline with this acquisition, particularly in the area of radio-coupled drugs based on the isotope actinium. Fusion's three existing dedicated clinical assets will be integrated into AstraZeneca's research and development program, enhancing its technology portfolio and market competitiveness in radiopharmaceutical development. By leveraging Fusion's expertise and existing assets, AstraZeneca is able to introduce new products more quickly and bring these innovations to market through its global distribution network.

- **New expertise and facilities:** With this acquisition, AstraZeneca not only acquires Fusion's radiopharmaceutical development expertise but also Fast-Clear linker, a differentiated platform and associated advanced facilities. The platform utilises alpha-nuclides with higher potency and shorter range than beta to develop radiopharmaceuticals, resources that enable AstraZeneca to further optimise its product development processes, and improve manufacturing efficiency and supply chain management capabilities. This combination of expertise and technical facilities will significantly enhance AstraZeneca's R&D capabilities in the radiopharmaceutical field, laying a solid foundation for future product innovation and market expansion.

3.2 Changes in the corporate structure

In AstraZeneca's acquisition of Fusion Pharmaceuticals, shareholder reaction and market feedback were key metrics to assess the success of the acquisition. This part will analyse the shareholder voting situation, the adjustment of dividend policy and the impact of strategic integration on shareholders in detail, and further clarify the actual impact of this acquisition on shareholders and the market.

3.2.1 Shareholders' shares and acquisition criteria

Fusion Pharmaceuticals' shareholders voted to approve the acquisition, **indicating that the majority of shareholders believe this M&A strategy is in their long-term interest.** This vote reflects shareholders' confidence in the future growth potential, particularly given AstraZeneca's global resources and strong presence in oncology therapeutics. The positive shareholder vote not only indicates approval of the merger but also reflects their expectations of AstraZeneca's synergies with Fusion. Shareholders believe that through this acquisition, Fusion will be able to leverage AstraZeneca's resources and platform to achieve greater business expansion and more efficient R&D advancement, thereby delivering long-term value to the company and the portfolio.

3.2.2 Adjustment of dividend policy

In April 2024, AstraZeneca announced an increase in its annualised dividend to \$3.10 per share, a decision that was interpreted by the market as a sign of the company's confidence in its solid financial performance and ability to generate future cash flow. The decision to increase the dividend not only helps to strengthen shareholders' trust in the company but also demonstrates the importance and commitment of the company's management to shareholder returns. The increased dividend policy reflects the growth of the company's performance and is also a direct return strategy to shareholders, aimed at attracting long-term investors and stabilising the shareholder base. The move reinforces investor confidence in AstraZeneca's financial health and further types of cement shareholder support for the company's future development.

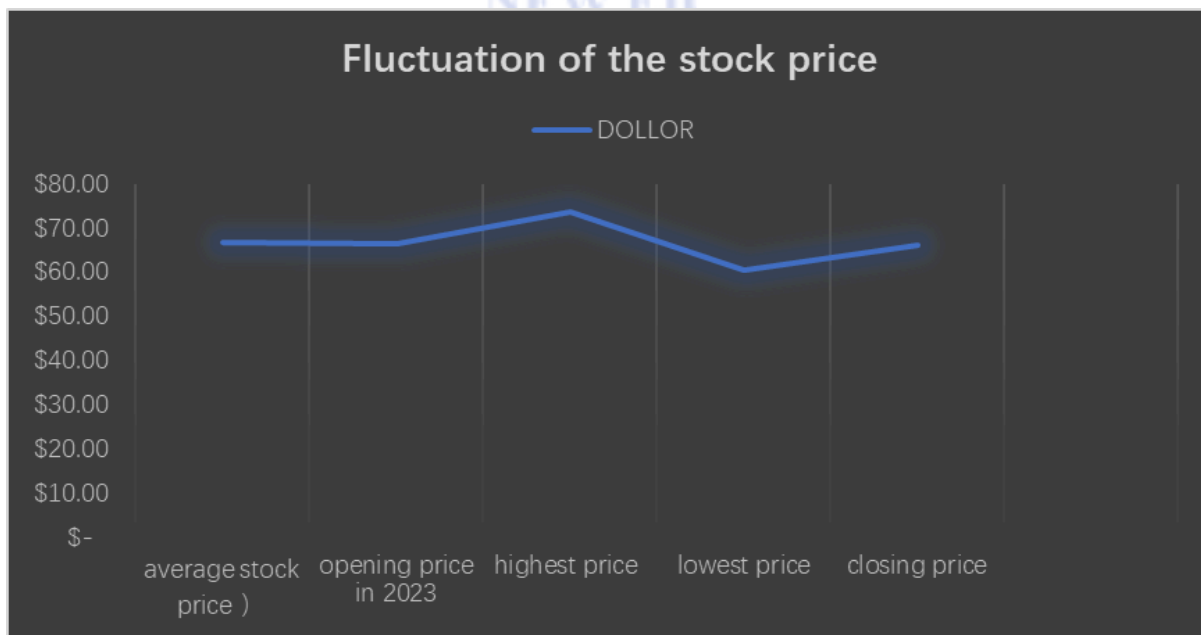
3.2.3 Impact of strategic integration on shareholders

The acquisition not only expands AstraZeneca's R&D capabilities in oncology but also strengthens its competitive edge in radiopharmaceutical development and marketing in particular. The field of radiopharmaceuticals is regarded as a blue ocean market with great potential due to its high entry threshold and complex technical requirements. With the acquisition of Fusion, AstraZeneca will gain access to an advanced radiopharmaceutical technology platform, strong ligand discovery capabilities and CMC (chemistry, manufacturing and control) experience that will help AstraZeneca gain a first-mover advantage in nuclear pharmaceuticals. In the long term, the acquisition will significantly enhance AstraZeneca's market competitiveness and enhance its presence in oncology. For shareholders, AstraZeneca's expansion strategy in the radiopharmaceutical market is expected to lead to further share price growth and higher shareholder returns.

3.3 Financial Data

FPI-2265, as the flagship product of Fusion Pharmaceuticals, is a potential new therapy for metastatic castration-resistant prostate cancer (mCRPC) and is currently undergoing Phase II trials. The acquisition of this asset and subsequent merger signifies that within less than a year, Fusion Pharmaceuticals has rapidly secured a clear path to registration by analyzing clinical trial data, optimizing the dosing regimen, and reaching an agreement with the FDA on its submitted Phase 2/3 clinical protocol for FPI-2265.

Figure 3.3.1 Fluctuation of the Stock Price



3.4 Acquisition Evaluation

The market's evaluation of this acquisition is positive, considering it will strengthen AstraZeneca's competitiveness in the field of oncology treatment and is expected to bring new growth opportunities in the future. Fusion Pharmaceuticals' Fast-Clear™ linker technology provides it with a new technological platform for the development of new therapeutic drugs, and the development focus of FPI-2265 is on patients after treatment with Pluvicto, with an expectation that in Phase II clinical trials, there will be a 30%-50% reduction in prostate-specific antigen (PSA), a biomarker for prostate cancer.

- **Acquisition Price and Company Value Enhancement:** AstraZeneca's acquisition price for Fusion Pharmaceuticals is approximately \$2.4 billion, which includes a cash acquisition of \$21.00 per share and a contingent value right (CVR) of \$3.00 per share that may be paid in the future. This represents a high recognition of Fusion Pharmaceuticals and an assessment of its potential value. After the acquisition, Fusion Pharmaceuticals became a wholly-owned subsidiary of AstraZeneca, which is expected to strengthen AstraZeneca's competitiveness in the field of oncology treatment.
- **R&D Investment and Future Revenue Expectations:** FPI-2265, as the main product under development by Fusion Pharmaceuticals, its progress in Phase II clinical trials will directly affect AstraZeneca's future revenue expectations. The development focus of FPI-2265 is on patients after treatment with Pluvicto, with an expectation that there will be a 30%-50% reduction in PSA in Phase II clinical trials. If this expected clinical effect is achieved, it will bring a new source of income for AstraZeneca.
- **Market Feedback and Stock Price Changes:** From the perspective of the stock market, the stock price of Fusion Pharmaceuticals had previously dropped by 88%, but its value significantly increased after the announcement of the acquisition. AstraZeneca's Acquisition received a positive market response, with an increase in stock price and market value, reflecting investors' recognition of the potential benefits of the acquisition.
- **Financial Risks and Regulatory Review:** Although the market's evaluation of the acquisition is generally positive, there are certain financial risks. Fusion Pharmaceuticals currently has no products on the market, and most of its R&D projects are in the early stages. In addition, due to the large asset size of the two banks, the FDIC and the Department of Justice have warned the banks that the procedural review of this merger will be more rigorous and slow, and this merger has also faced a lot of criticism in Congress, claiming that it will further increase the concentration of the banking industry.
- **Customer Churn:** After the acquisition, Fusion Pharmaceuticals will become a wholly-owned subsidiary of AstraZeneca. In this process, maintaining the existing customer base and attracting new customers is crucial. However, customers may choose to leave due to uncertainty about the new company's

culture, services, or products. To reduce customer churn, the merged company needs to ensure the continuity of services, and a smooth transition, and actively communicate the benefits of the merger.

- **Execution Risk:** This acquisition involves incorporating FPI-2265 into AstraZeneca's product portfolio, which is a potential new therapy undergoing Phase II clinical trials. Successfully integrating the R&D and commercialization process of FPI-2265 is key to achieving the expected benefits. Suppose there are problems during the integration process, such as technical incompatibility, process reorganisation delays, or employee resistance. In that case, it may lead to cost overruns, and project execution delays, and thus affect the company's overall performance.

Through these detailed financial data and change analysis, we can see the positive impact of AstraZeneca's acquisition of Fusion Pharmaceuticals on the company's future development, as well as potential risks that need attention.



References

- [1] AstraZeneca. (2024, August 5). In *Wikipedia*.
<https://en.wikipedia.org/wiki/AstraZeneca>
- [2] Cancer treatment. (2024, August 5). In *Wikipedia*.
https://en.wikipedia.org/wiki/Cancer_treatment
- [3] AstraZeneca, 2024, H1 and Q2 2024 Financial Results
<https://www.astrazeneca.com/media-centre/press-releases/2024/h1-and-q2-2024-results.html>
- [4] AstraZeneca, 2024, Completion of Fusion Acquisition
<https://www.astrazeneca.com/media-centre/press-releases/2024/acquisition-of-fusion-completed.html>
- [5] Acquisition of Fusion completed. (2024).
<https://www.astrazeneca.com/media-centre/press-releases/2024/acquisition-of-fusion-completed.html>
- [6] AstraZeneca to acquire Fusion to accelerate the development of next-generation radioconjugates to treat cancer. (2024).
<https://www.astrazeneca.com/media-centre/press-releases/2024/astrazeneca-to-acquire-fusion.html>
- [7] AstraZeneca Announces Major Investments in Ontario's Life Sciences Sector. (2023).
<https://www.newswire.ca/news-releases/astrazeneca-announces-major-investment-in-ontario-s-life-sciences-sector-820870723.html>
- [8] DeVol, R. C., Bedroussian, A., & Yeo, B. (2011). The global biomedical industry: preserving US leadership. *Milken Institute*, 5.
- [9] Lee, J. S. (2018). *Being A Biomedical Entrepreneur-Growth Of The Biomedical Industry*. World Scientific.
- [10] Pharmaceuticals, F. (2024). Fusion Pharmaceuticals Announces Presentation of Interim Data from the Phase 2 TATCIST Clinical Trial Evaluating FPI-2265 at the AACR Annual Meeting 2024.
<https://www.prnewswire.com/news-releases/fusion-pharmaceuticals-announces-presentation-of-interim-data-from-the-phase-2-tatcist-clinical-trial-evaluating-fpi-2265-at-the-aacr-annual-meeting-2024-302112266.html>