

Chiome Bioscience

TYO: 4583

Market Cap

JPY 11,805 million

Last Close

JPY 293

(As of July 9, 2021)

Conclusion

Albeit being a high-risk investment, Chiome shares may well offer interesting upside over the long term. Research and development is progressing steadily, and positive news flow is expected over the next 12-15 months. Since 2020, the stock price reacted noticeably well to the announcements about the progress of CBA-1205 and LIV-2008. However, in general, investors remain cautious, and it seems that expectations for the eventual outcomes that research and development progress can produce are not fully reflected in the share price. PBR of this sub-sector is not necessarily a powerful measure, but if it is a guidance, Chiome stocks are cheaper amongst the biomedical shares, whose market capitalization is less than 20 billion yen. In its early stage of the drug antibody development life cycle, the company is posting an operating deficit due to the burden of research and development expenses despite rising sales.

Investment view

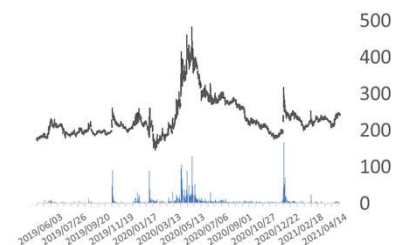
Biopharmacy shares are priced by incorporating expectations for the development of the drug discovery pipeline and the economic gains it can bring. As per Chiome, it appears the shares have been mostly out of favor since the stock price collapsed in 2014. In the meanwhile, the antibody candidate pipeline has progressed quite steadily. Currently, the drug discovery pipeline covers 11 items including development project items, and is thought to have entered an interesting stage if the development success likelihood is 10% -20%, as is generally observed.

Of particular interest as a stock price catalyst is the news flow on CBA-1205 (humanized anti-DLK-1 monoclonal antibody), a first-in-class cancer therapeutic antibody candidate that has no competitors in the world. Patents have been granted in Japan, the United States, Europe, China, etc., and the management reports that development is currently going well. Possible indications are intractable carcinomas such as hepatocellular carcinoma and lung cancer. If the signs of initial efficacy are confirmed in 2023, as the management expects, there should be major out-licensing deals. Already the company appears to have

Industry

Healthcare

Price performance



YH (21/07/08) ¥386

YL (21/01/04) ¥180

25-day moving ave. ¥228

75-day moving ave. ¥225

IR Contact

ir@chiome.co.jp

Company website

<https://www.chiome.co.jp/>

begun to move actively, seeking business alliances and out-licensing opportunities. In case of joint development, sales will decrease, but spending will decrease in return, and should enable Chiome to make a profit consistently. CBA-1205 is currently undergoing safety confirmation in the first half of Phase 1 trials at the National Cancer Center. The company aims to start the second half of the study in the latter half of 2021 toward the initial evaluation of the efficacy of hepatocellular carcinoma.

In addition, CBA-1535 (humanized anti-5T4 / anti-CD3 multi-specific antibody), an antibody for the treatment of malignant mesothelioma and solid cancer, is expected to apply for Ph1 clinical test approval either in the UK or Japan some time after the end of 2021. Both CBA-1205 and CBA-1535 are antibodies that have the potential to create new therapeutic agents that meet unmet medical needs.

Turning to the global pharmaceutical market, biotechnology already accounts for 30% and its growth driver is antibody drugs. Seven of the top 10 global drug sales in 2020 were antibody drugs. Chiome is not necessarily aiming only at developing antibodies that will lead to new drugs of the scale of trillions of yen, but it does operate in a market where success of research and development means great economic benefits.

Antibody drugs have fewer side effects than small molecule drugs. This is because it has high target specificity for diseased cells and does not easily damage normal cells / tissues. While it is not uncommon for antibody drugs to be priced 10 to 20 times more than small molecule drugs, the cost of development is significantly high. Therefore, the business is typically high risk and high return.

Period	Revenue (¥m)	EBITDA (¥m)	EPS (¥)	PER (CE) (X)	PBR (X)	ROE (%)
12/17	260	0	-33	0.0	2.1	0.0
12/18	213	0	-57	0.0	1.5	0.0
12/19	448	0	-42	0.0	2.4	0.0
12/20	481	0	-33	0.0	2.3	0.0

Share Price Observation

It is felt that the above-mentioned landscape, which is not so far away, is not fully reflected in the share price. TSR during the period after the share price collapse in CY2014 remains significantly negative. To refresh the memory, the market capitalization exceeded 60 billion yen in 2013 backed by strong expectations for the commercialization of the ADLib® system. However, it proved wrong and the distrust of investors may still be a drag on their sentiments. By 2014, the top major institutional investors had disposed of almost all positions and walked out.

Total Return

	1M	3M	6M	YTD	1Y	3Y	5Y	IPO (Dec 2011)
4583	-8.7	-10.2	-1.9	13.4	-40.4	-13.4	-20.9	-3.1
TOPIX	-4.2	-2.4	10.4	5.1	31.4	3.6	9.4	13.6

Returns over 1 years are annualised

Source: Omega investment from various materials



Needless to say, investors should keep in mind that the expectations of the results of research and development are not always the same between the developing company and the out-licensing company. In 2017, the management team was renewed. In response to the report of the third-party committee, the management team led by the new president Kobayashi officially commented that the results of the research and development may not be in line with the company's expectations, and that therefore there is a possibility that contract and negotiations may not be successful. They stated that the company lacked the attitude to explain those risks to investors. Currently, the management says that they talk with investors by understating their expectations to the proper degree. Conservative IR in a high-risk equity investment name gives us a sense of security.

Nevertheless, as the management pointed out, if there are multiple drug candidates, development may proceed or stop depending on the item. In fact, when the financial results were announced in May 2021, it was revealed that the joint development license of BMMA (humanized anti-semaphorin 3A antibody), which was a first-in-class out-licensing candidate antibody, and the exclusive option contract were terminated. At the same time, a joint research agreement was announced with Mologic of the UK to produce diagnostic antibodies using Chiome's antibody production technology ADLib® system. After all, the share price reacted very little to these.

Chiome Business

Chiome Bioscience is a bio-venture that conducts research and development of antibody drugs. It aims for out-licensing up to Phase1 clinical trials. Current pipeline consists of 11 items, including 2 out-licensed products, 1 clinical test product, 3 preclinical test products, and 5 drug discovery research projects.

The company owns the ADLib® system, which is antibody production technology, and a technology platform for antibody production. With these the company promotes in-house drug discovery research and initial clinical development. The ADLib® system is an innovative antibody production technology that produces human antibodies overwhelmingly speedily using avian immune cells, and was originally invented by RIKEN. Antibodies can be produced in vitro without the need for animal testing. The company was established in 2005 and was aiming at out-licensing of ADLib® system technology, but in 2017 the new management instituted development of pharmaceutical antibodies that meet unmet medical needs as a new business strategy.

Revenue Stream

There are two sources of revenue - the drug discovery business and the drug discovery support business. In the drug discovery business, new drug candidates are derived at the preclinical and clinical trial stages to receive lump-sum contract payments, development milestones, and royalties. Sales of this business can range from hundreds of millions to billions of dollars, but on the other hand, it takes a long time and a huge cost from the discovery of a new drug candidate to the out-licensing contract. Therefore the nature of this business is high-risk and high-return.

The drug discovery support business provides services related to protein expression, culture, and purification to support drug discovery research by pharmaceutical companies and biotechnology companies. Antibody production is a part of them. The major customers include Chugai Pharmaceutical, Ono Pharmaceutical, Kyowa Kirin, and Astellas Pharma. They are big companies in the field of antibody drugs and biopharmacy. Although the profit is not large, it is a stable source of profit and is growing steadily. The current sales are about 500 million yen, but the profit margin is at least 50%, and is more profitable than general clinical research in the market. The management regards this business as an operation to be of some help to fund the huge drug discovery research and development expenses.



Omega investment view - Definition

An insight into intrinsic value of the business and the stock price, and a presentation of investment views or perspectives that contribute to intelligent investment decisions. Stock recommendations are not the purpose. Contrarian views and non-consensus ideas are valued.

Investment ideas are put into the portfolio managers' context, taking into account the broader picture of the financial market and the economic environment, as well as the primary clients of institutional investors such as pension, wealth management, family offices and holders of investment trust, etc. Investment views are produced by digesting various data, company materials, analyst reports, and other easily available materials. One-on-one interviews may be held if deemed appropriate.

Rich in subjective discussion and de-emphasizes detailed explanation of the business. Equity investment strategies vary widely, therefore stocks are not graded. However, in most Omega Investment Views readers should easily see what the sensible investment action is. In case of excellent alpha expectation, we would not hesitate to express strong opinions.