Mebiopharm (TOKYO AIM・4580)

Phillip Securities Japan, Ltd.

Devote to develop the anti-cancer drugs with Drug Delivery System (DDS) by using its unique technology of liposome

Market Cap：JPY310mil　Progress in development of oxaliplatine encapsulated anti-cancer drug, MBP-426

Price : JPY 110 (17 Aug)

Highest : JPY 286 (22 July)

Lowest : JPY74 (4 Aug)

【Price Movement】(Unit：Yen・Share)

Date	High／Low／Close／Vol
22 July	286／286／286／375400
25 July	286／262／286／ 5000
27 July	283／283／283／ 1000
29 July	235／203／203／ 31000
2 Aug	150／123／123／ 39800
4 Aug	125／ 74／ 74／ 25000
8 Aug	99／ 99／ 99／ 10000
17 Aug	110／110／110／ 31000
Total Volume	518200
Price Range	JPY74～286
Average Price	JPY180

【Drug Discovery Pipeline】

Code	Inclusion Medicine
①ＭＢＰ－４２６	oxaliplatin
②ＭＢＰ－Ｙ００３	Methotrexate
③ＭＢＰ－Ｙ００４	Docetaxel
④ＭＢＰ－Ｙ００５	Gemcitabine

Total Issued Shares: 2,825,800

Ordinary Income: (Est Mar '12) 1.35 bil

BPS (Mar '11): JPY 71.1

Actual PBR (Mar '11) : 1.55 times

Est Div Per Share: JPY 0

Div Yield: 0%

Company Profile

Established : Jul 2002
Listed : Jul 2011
Location : 5-11-2 Toranomon, Minato-ku, Tokyo
No of Shareholders : 25 (as of Jul '11) (Except directors, employees and individuals)
No of Employees : 10 (as of Jul '11)
CEO : Mr. Tadashi Fujisawa

■Executive Summary

Mebiopharm was founded by Mr.Fujisawa, CEO of Mebiopharm, who holds marketing background in foreign pharmaceutical Company, Dr.Eriguchi, researcher in the Institute of Medical Science of University of Tokyo, and Dr. Maruyama, professor of the Pharmaceutical Sciences of Teikyo University, aiming to develop and to manufacture the liposomal drugs specialized for cancer treatment by applying DDS technology on 15th July 2002. The Company is trying to differentiate from competitors through development of anti-cancer drugs with minimized side-effects by effective use of its patent, i.e. co-operations with doctors and professors in universities. Although many drug-discovery ventures are likely to focus directly on the development of anti-cancer drugs or drugs for treating intractable diseases, the Company focuses on the development of new drugs created through encapsulation of the existing drugs inside liposome with a new technique of DDS using transferrin. The Company invests JPY500~600M a year and has been spent over JPY2.9B since its foundation. There are 4 development-staffs striving on R&D to fight the mortal illnesses at Yokohama Research Center and set patent strategy as their operating foundations. Currently, 4 drugs are in pipelines, "MBP-426" in the phase II clinical study and the encapsulated oxaliplatine for treatment of both gastric cancer and colorectal cancer. The oxaliplatin formulation is sold by Sanofi in France and by YAKULT HONSHA CO, LTD under a trade name of "Elplat." The size of the global market for these drugs was US$2.1B at the peak in 2006. Since then, it has been shrinking. However, if "MBP-426," which is expected to offset side effects through DDS, is launched in US, the Company is able to estimate the sales of JPY110B. They expect the revenues from upfront payments and milestones. The Company has been listed on TOKYO AIM on 15th July 2011, on the same date as its establishment. They have disclosed their operating revenue and profit & loss estimation for the current term as well as the next term. The operating revenue during the fiscal year ending March 2011 was JPY9M and the ordinary loss was JPY260M. However, they forecast the operating revenue in the fiscal year ending March 2012 will be JPY1.95B and the ordinary profit will be JPY1.35B, operating revenue in FY2013 will be JPY2.74B and the ordinary profit will be JPY1.7B.

■ Stock Price Valuation

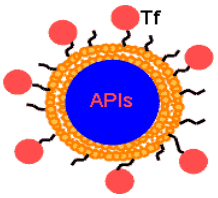
The very first price traded after IPO was JPY286 on July 22, 2011 and it hit the lowest of JPY74 on August 4, 2011. Total market capitalization based on a total number of the issued shares excluding residual securities has been fluctuating within the range between JPY800M and JPY200M. Given that the Company's estimated performance on the current and the next term, it has been incredibly undervalued. It has been underestimated compared to other 13 listed drug discovery firms; however, we expect it to create the momentum by improving profitability through implementation of the new technologies both in Japan and overseas and by the better publicity of the Company appealing to both the retail and the professional investors. As the Company did not raise its capital upon IPO in TOKYO AIM, it might consider another equity finance, depending on the conditions. We would like to evaluate it positively since the Company estimates drastic jump in its revenue due to potential licensing of technologies to both domestic and foreign firms.

(Unit : million yen)	Sales	YOY	Operating Profit	YOY	Ordinary Profit	YOY	Net Income	YOY	EPS
2010/3	7	2.3 x	-508	na	-452	na	-457	na	na
2011/3	9	1.3 x	-318	na	-258	na	-262	na	na
2012/3 (Est)	1,954	217 x	1,347	na	1,347	na	1,345	na	476.7
2013/3 (Est)	2,738	40.1%	1,701	26.3%	1,702	26.4%	1,700	26.2%	601.6

Concentrates on the development of anti-cancer drug that can control the side effect by using DDS technology

Since its foundation in 2002, the Company has been continuing to work on introducing improved drugs encapsulating the existing anti-cancer drugs in liposome by using the DDS technology (a system or technology that delivers drugs only a necessary amount at necessary time, to a necessary place) into the market. The Company focuses on the characteristic of the transferrin, a blood plasma glycoprotein which receptors over express on cancer cell surface and has transferrin on the surface of the liposome as ligands. The liposome technology that has existed for about 50 years is developed further, and it is one of the technical features of this Company to use transferrin (glycoprotein that works the role to transport the iron ion in blood) as a material (ligand) that binds to a transferrin receptor specifically.

patented 4th generation liposome



The liposome is a non-toxic minute capsule of phospholipid and is a nano-particle, which has a similar structure to the cell membrane of the living body. It is able to deliver the various drugs to the target cells inside a body, such as cancer cells, through blood stream, by encapsulating drugs in it. The Company has developed the third generation liposome using macromolecule, i.e. polyethylene glycol (PEG) as linker and transferrin as ligand after the success of the development of the second generation liposome, that the Company connected PEG with the first generation liposome. Moreover, the Company is striving to develop the fourth generation liposome by using low molecular, i.e.NGPE (a kind of phospholipid) , as linker, which is expected to reach the target cells with higher probability.The patent on this research covers 4 drugs in the pipeline and is valid until 2026. Also materials including MBP-426 have been granted a patent in the US in Nov. 2010, the Company has a foundation for its global operations.

knowledge and technologies gained by developing MBP-426

Since the pharmaceutical research on liposome has been within an academic realm for a long time, a production of a small quantity has been feasible, but a production of a large quantity was difficult. However, with the Company's technology with 99% encapsulation rate, complying with the pharmacopoeial standard, a large scale production with low-cost operation has become feasible. The drugs to encapsulate are not required to be new; the generic, off-patent drugs work as well. Thus, development risk will be reduced. Furthermore, it is applicable with the liquid preparation as well as the freeze-dried formulations. Therefore, the drugs have a long shelf life. The Company's liposome could be used for any kinds of drugs and active ingredient, and the ligand is not limited to transferrin. The liposome is expected to be able to apply to the other industry areas such as cosmetics and toner.

At the stage of Phase Ⅱ B in the united states

The Company has 4 products in its pipeline. The Company has aggressively proceeded its development of drug encapsulating oxaliplatin, anti-cancer drug used for the upper gastroenterological cancer and gastric cancer, since the establishment. It has completed Phase IIa clinical study and the Phase IIb is planed to start in this fiscal term. After about a year of the clinical trial, the Company plans a licensing out of its know-how before enter the phase III. The phase III will be conducted by the Company given the license. MBP-426, anti-cancer drug for colorectal cancer, is planed to enter the phase II in Europe during this term.

Licensing out of technologies to Chinese pharmaceutical firm Aim for early development

Besides MBP-426, IND application of MBP-Y003, an encapsulated methotrexate, used in a wide range of illnesses such as sarcoma and lymphoma is in preparation. MBP-Y004, an encapsulated docetaxel, targeting a solid tumor such as breast cancer is under study. MBP-Y005, an encapsulated gemcitabine, targeting a solid tumor such as pancreatic cancer is under preclinical trail and will be quickly developed with a Chinese company given our license. The 20-year patent-term of gemcitabine will be expired next year and become generic. Drug formulation has been completed. However, it requires highly frequent drug intake and causes side effects such as bone-marrow suppression and a loss of appetite. Immediate clinical trial of DDS drug is necessary.

【drug discovery pipe line development plan】

Code	API	Indication	Stage	Target at Mar '15
① MBP-426	Oxaliplatin	Gastric Cancer	Phase II	Phase III
① MBP-426	Oxaliplatin	Colorectal Cancer	In preparation for Phase II	Phase III
② MBP-Y003	Methotrexate	Sacroma, Lympohma	In IND preparation	Phase I
③ MBP-Y004	Docetaxel	Solid Tumor	Formulation Study	Pre-clinical study completed
④ MBP-Y005	Gemcitabine	Solid Tumor	Pre-clinical study	Phase I

(※) IND：Investigational New Drug

Oxaliplatin discovered by Japanese

Oxaliplatin is a compound discovered by Professor Emeritus Kidani, Nagoya City University and Debiopharm located in Lausanne, Swiss carried out clinical trials and developed as anti-cancer drug. Now it's one of the three worldwide standard drugs for the treatment of colorectal cancer. In Japan, YAKULT HONSHA introduced it and started its domestic sale in Mar 2005. An annual sale of about JPY32B is expected in this term. Peak sales of oxaliplatine in the global market was USD2.1B in 2006 and 64% of which was from US. It is expected that potential sales of the Company in the US will be 110 billion yen, based on the assumption that the drug price of such DDS nanoparticle of the Company is 140% of that of the existing drugs and that the Company acquires 65% of the total prescriptions for such drugs.

The challenge towards elimination of side effects

Oxaliplatin is transformed into active form after introducing to the body. The active form is bound to DNA inside the tumor cells and protein, and is effective in killing tumor cells. However, it causes side effects associated with peripheral neuropathy and damage to kidneys. A major challenge the Company is facing with is the elimination of the negative side effects. In Japan, incidences of colorectal cancer will overtake those of gastric cancer, and colorectal cancer will be the country's leading killer by 2015. Patent on oxaliplatin for injection will be expired in Mar 2013, but the Company believes it is possible to launch a new drug by developing DDS type although a generic drug of oxaliplatin has been launched.

Cumulated loss of aprox. JPY 4 billion since established

Track record is as follows. The Company raised JPY4.2B in total from venture capitals and financial institutions and spent JPY500~600M for R&D each year. As a result, cumulative loss reached about JPY4B. However, by license-out to domestic and overseas companies, the Company is expected to turn profitable in 2012 and 2013, the cumulative loss will be recovered within 3 years and the shareholders' equity will exceed JPY4B in 2014. On the other hand, the Company holds a risk of failing in the license-out. They raise funds from the market to accelerate the development if necessary. Mebiopharm is the first listed Company in TOKYO AIM but no new shares were issued upon listing.

Term	Sales	Operating Profit	Ordinary Profit	Net Income	Net Asset
Mar 2003	0	▲1	▲1	▲1	8
Mar 2004	0	▲51	▲52	▲56	182
Mar 2005	2	▲253	▲262	▲262	934
Mar 2006	40	▲761	▲733	▲739	1864
Mar 2007	2	▲750	▲750	▲752	1712
Mar 2008	9	▲898	▲891	▲924	1145
Mar 2009	3	▲516	▲520	▲522	621
Mar 2010	7	▲508	▲452	▲457	153
Mar 2011	9	▲318	▲258	▲262	200
Mar 2012 (Est)	1954	1347	1347	1345	1546
Mar 2013 (Est)	2738	1701	1702	1700	3246

(Unit : 1mil)

Licensing out of technologies to domestic and foreign

On 23rd June 2011, the Company has signed the basic agreement with Tanaka Kikinzoku Kogyo K.K. to license the manufacturing technologies on MBP-426 as well as liposome formulation which has been co-developed with them. On 6th Jul 2011, the Company has basically agreed to license a pharmaceutical company in Beijing, China to manufacture, to develop and to distribute DDS drugs in China using its intellectual property, and to co-develop and to consign sale of MBP-Y005. Currently the Company is working on entering into a definitive agreement.

Estimate drastic increase of profit gain due to licensing out of technologies

The Company expects to receive upfront payment, earnings from selling machinery equipments and raw materials, and fee for technical support by concluding the business tie-up agreement with Tanaka Kikinzoku Kogyo K.K. on 23rd June 2011. As for the pharmaceutical company in Beijing, China, upfront payment, earnings from selling raw materials and fee for technical support are expected. In addition, the Company plans a profit of upfront payment by the execution of the license out agreement of MBP-426 that is now advancing the negotiation in Japan, Europe and America. The company has not disclosed break downs but plans to move into the black in a year by profits in this fiscal year. Although profits from licensing out of technologies are considered as one of the ways to raise funds, there is a possibility to proceed to new fund raining if corporate value is acknowledged and evaluated by the market.

Continuous sales after next term

After next FY, the Company's profit will be consisted of milestone payment, technical support fee and earnings from selling raw materials. Royalties from licensees will be a part of the profit structure in the future. If these profit target as well as their business activities are acknowledged by investors, visibility of the Company and market evaluation will increase.

Promote literary products・patents strategies

Despite the Company is a drug discovery venture focused on R&D, they files basic patent application on liposome technology (able to use any drugs and any targeting factors as ligand) in the world and successfully obtained a patent in major market, the United States. Their basic patent application includes all other pipeline products under development is valid till 2026. As a result, substance including MBP-426 are patented on November 2011 in the United States. The Company will proceed to obtain a patent right in each countries and plans to enforce the right favorably in each region. Also during the implementations of its operations, they will try to obtain a patent right which lead to business partnership. While the Company ensures the profit by licensing out of patent technologies, will ensure for liposome formulation technologies, manufacturing system development, scale up technology development, and accumulation of know-how, and will built up profitable model of patents but also manufacturing rights, development rights, distribution rights and licensing out of overall technologies and know-how.

Consider developments in Singapore

So far, development and clinical trial have been done mainly in Europe and US. The Company plans to expand its area mainly to Asia, achieving a remarkable breakthrough to promote clinical trial and development of basic research. Especially Singapore is nominated as major R&D center due to favorable environment, such as proactive approach to laboratory, offering subsidy, well-developed market, well-established law and English is a common language.

Expect possibility of future growth and better valuation

If the Company will be able to combine DDS basic technology with the existing drugs and active ingredient, it assists in expanding the Company remarkably.
The Company is aiming at developing a unique technology to develop new drugs at low cost by combination of old technology and their updated technology. It will differentiate them from other drug discovery venture who requires enormous investment in R&D. Developing drug with minimal side effects to meet the needs of QOL (quality of life) of patients is endless challenge. The Company can be considered to be ranked as pioneer in this area.
Their main business is to develop anti-cancer drug and their basic patent technology is applicable to the fields for Alzheimer and other areas.
In the future, if the Company is able to modify ligand and linker, development phase may continue to shift to the fifth and sixth generation. There is a room yet to grow their business.

Various venture capitals have invested

65% of its outstanding shares is held by 19 venture capitals (VC) and 5 institutional investors. Daiwa Corporate Investment, a leading VC, holds 16.7% of the shares and JAFCO holds 12.1%. Mebiopharm is the first company to list on TOKYO AIM. They did not issue new shares to raise its capital in expectation of licensing out of its technology before listing. The first traded price on TOKYO AIM was JPY286, fell far short of the price range announced in a pre-IPO hearing and dropped further down to JPY74. The market capitalization remains at low level, JPY310M. Since only professional investors are allowed to participate in TOKYO AIM, not enough funds have been flowed into the market and it caused the plunge in the stock prices. Moreover, selling at the low price by VC pushes the stock price further down.

Re-valuate as high potential drug discovery venture

Currently, 14 drug-discovery ventures including Mebiopharm are listed on stock exchanges in Japan. Compared to 3 companies who have similar business structures, the Company's valuation is underestimated. Although most investors are ignoring the Company's revenue plan for this fiscal year. After having invested JPY2.9B in R&D at least over the past decades, the value of its intellectual properties must be high. We think there must be a room for a review on the value of the Company. Strengthening its net worth will remain as the issue under its continuing R&D activities, and a further equity financing might be needed. However, it should be received as positive development by investors if the Company could indeed ensure the next financing.

【List of drug discovery venture】

1. AnGes MG(4563) medical
2. Sosei Group (4565) drug discovery
3. ECI (4567) bio
4. NanoCarrier (4571) cancer treatments
5. Carna Biosciences (4572) drug discovery support
6. CanBas (4575) anti-cancer pills
7. D.Western (4576) drug discovery
8. Tella (2191) cancer immunity
9. G N I (2160) drug discovery
10. RaQualia (4579) drug discovery
11. MediBic (2369) genome drug discovery
12. OTS (4564) cancer treatment vaccine
13. MediciNova (4875) drug discovery

Company Name (Code)	Price	Market Cap	Sales	Est Net Income	Capital	R & D
NanoCarrier (4571)	JPY24110	JPY5.4B	JPY440M	JPY▲510M	JPY1.8B	JPY220M
CanBas (4575)	JPY717	JPY2.1B	JPY1 B	JPY 200M	JPY1.9B	JPY1.78B
RaQualia (4579)	JPY875	JPY11.6 B	JPY1.3 B	JPY▲1.9B	JPY9.4B	JPY800M
(Avg of 3 companies)		JPY6.4B	JPY910M		JPY4.4B	JPY930M
Mebio (4580)	**JPY110**	**JPY310M**	**JPY1.95B**	**JPY1.35B**	**JPY 200M**	**JPY600M**

Risk factors

There will be a possibility for delay in clinical trial and development, uncertainty in licensing out of its technology, possibility of further financing, performance fluctuation, risk with Chinese company, possible failure in intellectual property strategy, patent violation by other companies, hurting the Company image with low stock prices, and delay in development and/or manufacturing due to adverse relationship with domestic and overseas business partners.

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2. There is not the serious conflict of interest relationship between the analyst who is the writer of this report and reported Company.
3. Phillip Securities Japan was a lead-managing underwriter in “primary offering subscription to specified investors” concerned with “specified securities information” of the companies published 10/June/2011.（But this “primary offering subscription to specified investors” was canceled afterward.)