

# Supplement Documents for Financial Results FY12/18

Feb 14, 2019



To accelerate drug discovery and development of mAb  
for therapeutics to overcome current medical unmet-needs

**Chiome Bioscience Inc.**

- 1. Overview of FY12/18 “Financial results”**
- 2. Overview of FY12/18 “Operation highlights”**
  - Business highlights for FY12/18**
  - Drug Discovery and Development Business**
  - Drug Discovery Support business**
- 3. Outlook for FY12/19**

## **Appendix. Corporate information**



## **Overview of FY12/18 “Financial results”**

	FY2017	FY2018	Increase (decrease)	
Net sales	259	212	(47)	
Drug Discovery & Development	59	2	(57)	<ul style="list-style-type: none"> <li>Upfront payment from SemaThera Inc.</li> <li>Recorded initial upfront payment for ADCT-701 in FY2017.</li> </ul>
Drug Discovery Support	200	210	10	<ul style="list-style-type: none"> <li>Sales were robust in</li> <li>Opened new accounts with leading pharmaceutical companies</li> </ul>
COS/SGA	1,147	1,751	604	
R&D Expense	592	1,230	637	<ul style="list-style-type: none"> <li>Investment in preclinical studies of CBA-1205</li> <li>Expenses of the acquisition of assets, T-cell engager antibody "Tb535H" and antibody platform "Tribody™"</li> </ul>
Other costs	555	521	(33)	
Operating Loss	(887)	(1,539)	(651)	
Ordinary Loss	(883)	(1,533)	(650)	
Net Loss	(882)	(1,533)	(650)	



(JPY mn)

	As of Dec. 31, 2017	As of Dec. 31, 2018
Current assets	4,196	2,609
(Cash on hand in banks)	4,027	2,328
Non-current assets	222	221
Total assets	4,419	2,831
Current Liabilities	161	113
Non-current liabilities	40	41
Total liabilities	201	154
Total net assets	4,217	2,676
Total liabilities and net assets	4,419	2,831



(JPY mn)

	FY12/17	FY12/18
Cash flows from operating activities	(867)	(1,688)
Cash flows from investing activities	(137)	–
Cash flows from financing activities	478	(10)
Net increase (decrease) in cash and cash equivalents	(525)	(1,698)
Cash and cash equivalents as of the beginning of the year	4,553	4,027
Cash and cash equivalents as of the end of the year	4,027	2,328

## 【Cash flows from operating activities】

- Acquisition of T-cell engager antibody, “Tb535H”, for cancer treatment and multi-specific antibody platform, “Tribody™”, from UK-based Biotecnol Limited
- Expenses for CMC development to manufacture CBA-1205 for clinical development.



## **Overview of FY12/18 “Operation highlights”**

## Drug Discovery and Development Business

- ✓ Execution of an Option License Agreement with SemaThera for BMAA, a humanized anti-Semaphorin 3A antibody generated using the ADLib® System.
- ✓ Preclinical developments of ADCT-701 and CBA-1205 are progressing as planned.
- ✓ Acquisition of T-cell engager antibody “Tb535H” (CBA-1535) for cancer treatment and multi-specific antibody platform “Tribody™” from UK-based Biotecnol Limited.

## Drug Discovery Support business

- ✓ Execution of an umbrella agreement and an additional contract with Ono Pharmaceutical Co., Ltd.
- ✓ Opened new accounts with leading pharmaceutical companies in biologics such as Kyowa Hakko Kirin Co., Ltd., and others.
- ✓ Extension of the contract with Chugai in Japan. This contract will be renewed every 3 years instead of 2 years.

## Out-Licensed Product

Code	Target	Therapeutic Area	Basic research, Drug Discovery	Preclinical Study	Clinical Trials	Partner
ADCT-701 (LIV-1205 ADC)	DLK-1	Oncology /ADC		Plan initiation of P-1 late 2019		

## Pipelines

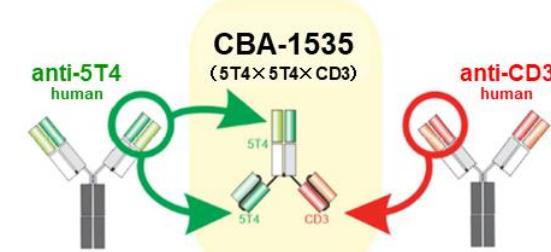
Project	Target	Therapeutic Area	Basic research, Drug Discovery	Preclinical Study	Clinical Trials	Status
CBA-1205 (ADCC enhanced)	DLK-1	Oncology		Plan initiation of P-1 2020/2021		Developing in-house
CBA-1535 (Tribody™)	5T4×CD3 ×5T4	Oncology		Materials and tech transfer Project launched		Newly acquired Dec.2018
LIV-2008 /2008b	TROP-2	Oncology		Under evaluation by several pharma		Licensing opportunity
BMAA	SEMA3A	DME, Others		Under evaluation by SemaThera		 SemaThera (Exclusive option agreement)
Discovery PJ (5) *	Undisclosed	Oncology infectious/ rare diseases		Preclinical data package for out-licensing		—

\* 5 projects were prioritized aiming to accelerate development and generate out-licensing package.

## Acquisition of T-cell engager antibody, "Tb535H", for cancer treatment and multi-specific antibody platform, "Trisoma®", from Bioteclol Limited Project launched as development code "CBA-1535" in Chiome

### About Tb535H

Tb535H is a T-cell engager, trispecific antibody, directed against the 5T4/WAIF1 tumour antigen, a protein found on many different solid tumours and is thought to contribute to the spread of cancer cells. Tb535H recruits the patient's T-cells -killer cells of the immune-system – and directs them to attack tumours. This highly targeted approach uses the patient's own immune system to fight cancer.



### About Trisoma® technology

The Trisoma® technology enables the generation of multi-specific antibody products. This unique technology overcomes the key shortcomings of conventional mono- as well as of currently developed bi-specific antibody formats. With the Trisoma® technology, Bioteclol can engineer and assemble recombinant antibodies in a rational manner in order to design a chosen mechanism of action to address the killing of a specific tumour type.

### About Bioteclol Limited

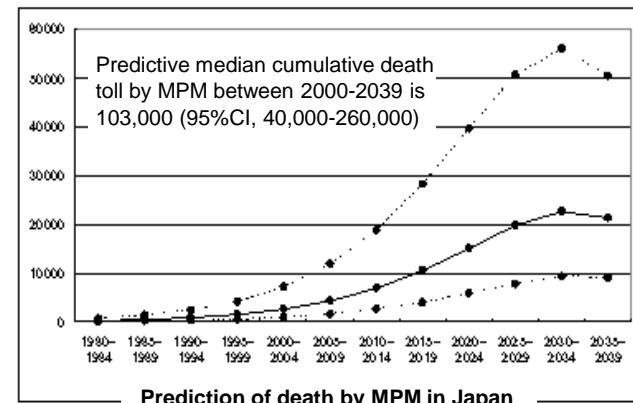
Bioteclol Limited is a London (UK) based immuno-oncology company developing innovative immune-function activating and immune-function modulation approaches for treating cancer. These approaches seek to recruit or to modulate the body's own immune defences such as T cells and NK cells to kill tumours. Bioteclol multi-specific antibody products are based on its proprietary Trisoma® platform, which are comprised of a variety of formats with key properties.



## Potential primary indication of CBA-1535: “Malignant pleural mesothelioma” of high unmet medical needs

- Pleural mesothelioma is a form of mesothelioma that affects the pleural surfaces lining the lungs and inside of the chest wall. Asbestos exposure is the only definitive cause of pleural mesothelioma. Most often, pleural mesothelioma is caused by inhalation of asbestos fibers.  
\*Asbestos used to be used as heat insulator in buildings. It disperses on destruction of old buildings.
- Most epithelioid pleural mesothelioma patients are treated with a multimodal plan, which often consists of some combination of surgery, chemotherapy and radiation. One of the difficult cancers to treat.
- It takes 40 years in average to onset the disease from exposure to asbestos, number of patients are reaching the peak in the developed countries, while, it still grows in the under development region.
- Common symptoms: chest or lower back pain, persistent coughing, coughing up blood, difficulty swallowing, shortness of breath, fluid around the lungs, weight loss, fever, etc.

Japan will face the peak



Prof. Murayama, Waseda Univ.

### Unmet needs to be solved

Offer a new treatment option for a disease which has poor prognosis and where there is only few effective treatment.

## ADCT-701\* (Humanized anti-DLK1 antibody ADC)

- ✓ GLP study is progressing.
- ✓ Phase 1 study is expected to initiate in the second half of 2019.

\*Chiome granted ADCT a worldwide exclusive license with a right to sublicense, develop, manufacture, and commercialize an ADC format of LIV-1205, which is coded "ADCT-701".



## BMAA (Humanized anti-Semphorin3A antibody)

First in class

- ✓ Being evaluated by SemaThera Inc. which will decide whether or not to exercise the option right during the evaluation period specified in the Agreement.
- ✓ Following US, Patent has been issued in Japan (Jun., 2018) and in Europe (Oct., 2018).

\*Chiome has granted SemaThera Inc. an exclusive option right to obtain a worldwide exclusive license to develop the antibody as a therapeutic and/or diagnostic agent for diabetic macular edema and other diabetic complications including non-ophthalmic diseases.



## CBA-1205 (Humanized afucosylated anti-DLK1 antibody)

First in class

- ✓ An ADCC enhanced antibody by using glyco-engineering technology. Master Cell Bank has been established. GMP production for Phase 1 study is scheduled at a contract manufacturer ProBioGen.
- ✓ Clinical Development Department was set up to carry out the clinical development. They select a CRO for Phase 1 and prepare a clinical development plan.
- ✓ Based on the preclinical data and timeline of GMP manufacturing, Phase 1 study is scheduled to initiate in 2020 to 2021.

## LIV-2008 (Humanized anti-TROP2 antibody)

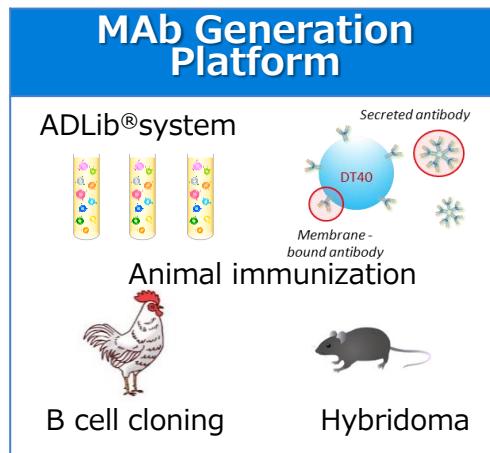
- ✓ LIV-2008b is a humanized monoclonal antibody targeting cell surface antigen "TROP-2" which is overexpressed in breast cancer, colon cancer, lung cancer and several types of solid cancers and also expected to play a key role in the proliferation of cancer cells.
- ✓ The patent was granted in the US in October 2018. (Patents have become effective in a total of five countries and region, including Japan, EU, and China.)
- ✓ Licensing activities continue based on the pre-clinical testing data obtained thus far. A couple of pharma companies are evaluating this antibody.

## Discovery projects

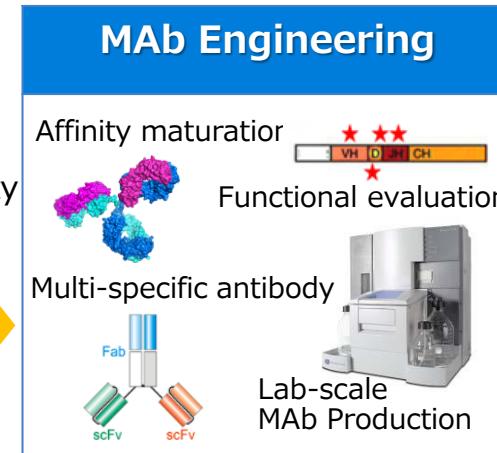
- Strengthen internal R&D activities toward novel drug candidates.
- Implementation of collaborative research projects with domestic research institutions for new drug discovery and development targeting unmet medical needs.
- Five projects (in the areas of cancer, infectious diseases and the central nervous system) were prioritized to accelerate the development work and generate data package for licensing opportunity at an early stage.

## Technology Platform

- Implementation of collaborative research projects to enhance technology portfolios for improving drug discovery capability.



Antibody with diversity  
as fast as possible,  
as many as possible



Enhance functions  
of antibody

- High-affinity
- Bispecific / Trispecific
- ADC
- T Cell redirection
- Immuno oncology

## Conduct business with pharmaceutical companies, etc.

- ✓ Chugai group has been a main business partner. In addition, Chiome provided antibody generation and custom protein services to pharmaceutical companies, research institutions, and academia.
- ✓ Opened business accounts with Kyowa Hakko Kirin, a leading biotechnology company and others.
- ✓ Signed the 2nd agreement under an umbrella agreement with Ono Pharmaceutical to support its drug discovery by securing resources within Chiome.

<Key business accounts>



# Outlook for FY12/19

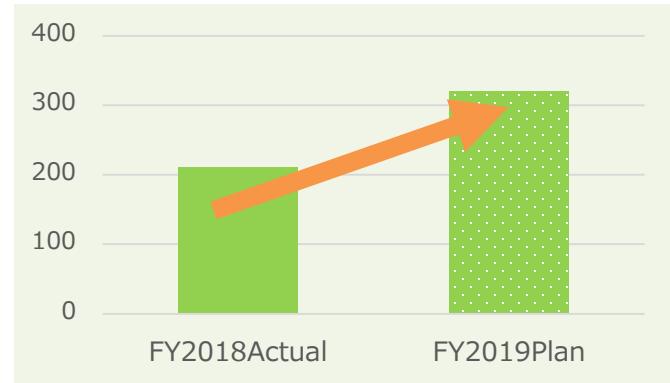
## Drug Discovery and Development Business

- ADCT-701 : Initiation of Phase 1 study planned in the second half of 2019
- BMAA : Decision to exercise/not exercise the option right expected in the first half of 2019 at earliest by SemaThera
- CBA-1205 : GLP toxicity studies are scheduled for 2019. Initiate Phase 1 study in the first half of 2020 or later.
- CBA-1535 : CMC development should be initiated with the timeline to start Phase 1 study in the second half of 2021 or later.

Financing launched mainly for the purpose of CMC development and initial clinical trials for CBA-1535; Issued series 14th Subscription Rights to Shares on Jan.8 2019

## Drug Discovery Support business

- Provide service of the best and highest quality to all clients and boost sales.
- Open 2 to 3 new accounts within pharmaceutical companies
- Achieve sales target of 320 million JPYen.



- Issued series 14th Subscription Rights to Shares to Merrill Lynch Japan Securities Co., Ltd. On Jan.8 2019.

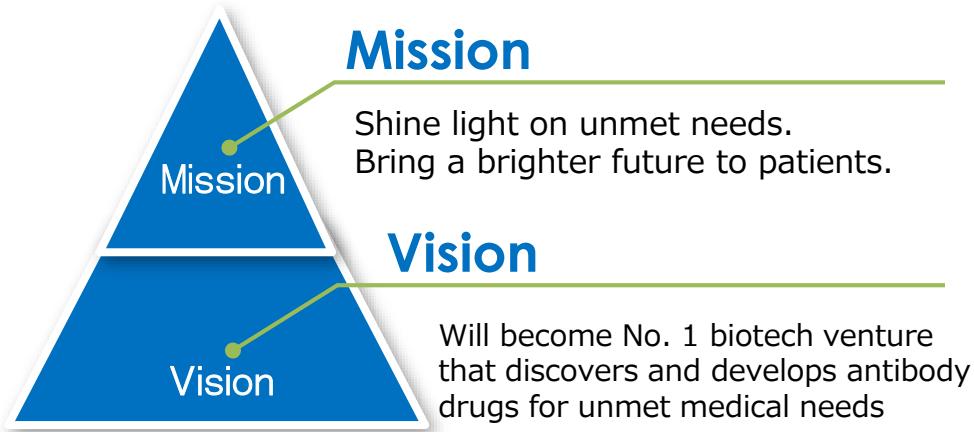
Number of new shares issued	6,428,000 shares
Total amount of funds	1,482 million JPY
Exercise period	Jan.9,2019~Jan.8,2021)
Initial exercise price	233 JPY (Minimum exercise price:140 JPY)

Use of funds	Cost(million JPY)	Scheduled period of spending
① Pre-IND submission and early-phase clinical trials for CBA-1535	1,200	Apr.2019~Dec.2021
② Expansion and licensing-in of new pipelines	282	Jun.2019~Dec.2020



## Appendix. Corporate information

## Biotech company dedicating to satisfy unmet medical needs



### Management principle

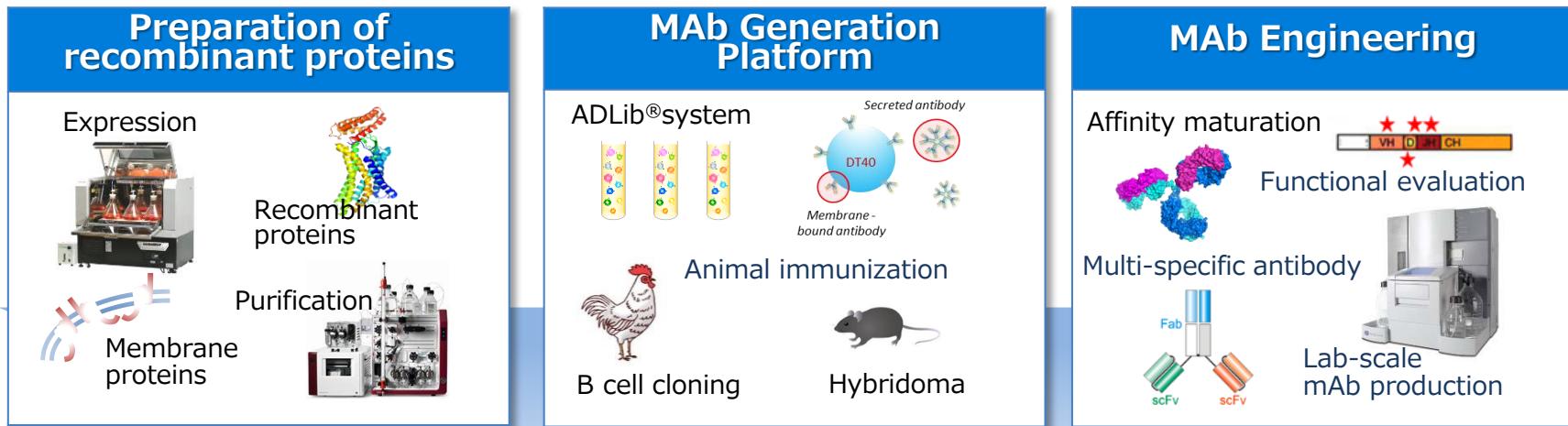
- Place the highest priority on sound management and credibility and aim to become a corporation that grows with society.
- With creativity and science, develop therapeutic drugs for unmet medical needs, and contribute to the health of patients.
- Achieve successive product pipelines and improvement of corporate value through collaboration with external institutions.

- Founded: February 2005
- Listed on the stock exchange: Dec.2011 (Tokyo Stock Exchange Mothers Section) 
- President,Chief Executive Officer: Shigeru Kobayashi, M.E.
- Location :  
<Head Office and Research Laboratories>  
3-12-1Honmachi, Shibuya-ku, Tokyo  
<Drug Discovery Laboratories>  
907 Nogawa, Miyamae-ku, Kawasaki-city, Kanagawa
- Number of Employees :  
49 (As of December 31,2018)
- Business :  
Chiome Bioscience (4583.T), is a public company leveraging a proprietary monoclonal antibody generating technology, for drug discovery and development, as well as providing drug discovery supports.

As of December 31, 2018



## Technology Platform (Chiome's mAb Discovery Engine)



Chiome possesses antibody platforms including its proprietary technology, and extensive know-hows and experiences in protein/antibody engineering to streamline the process of drug discovery.

This enables us to contribute in

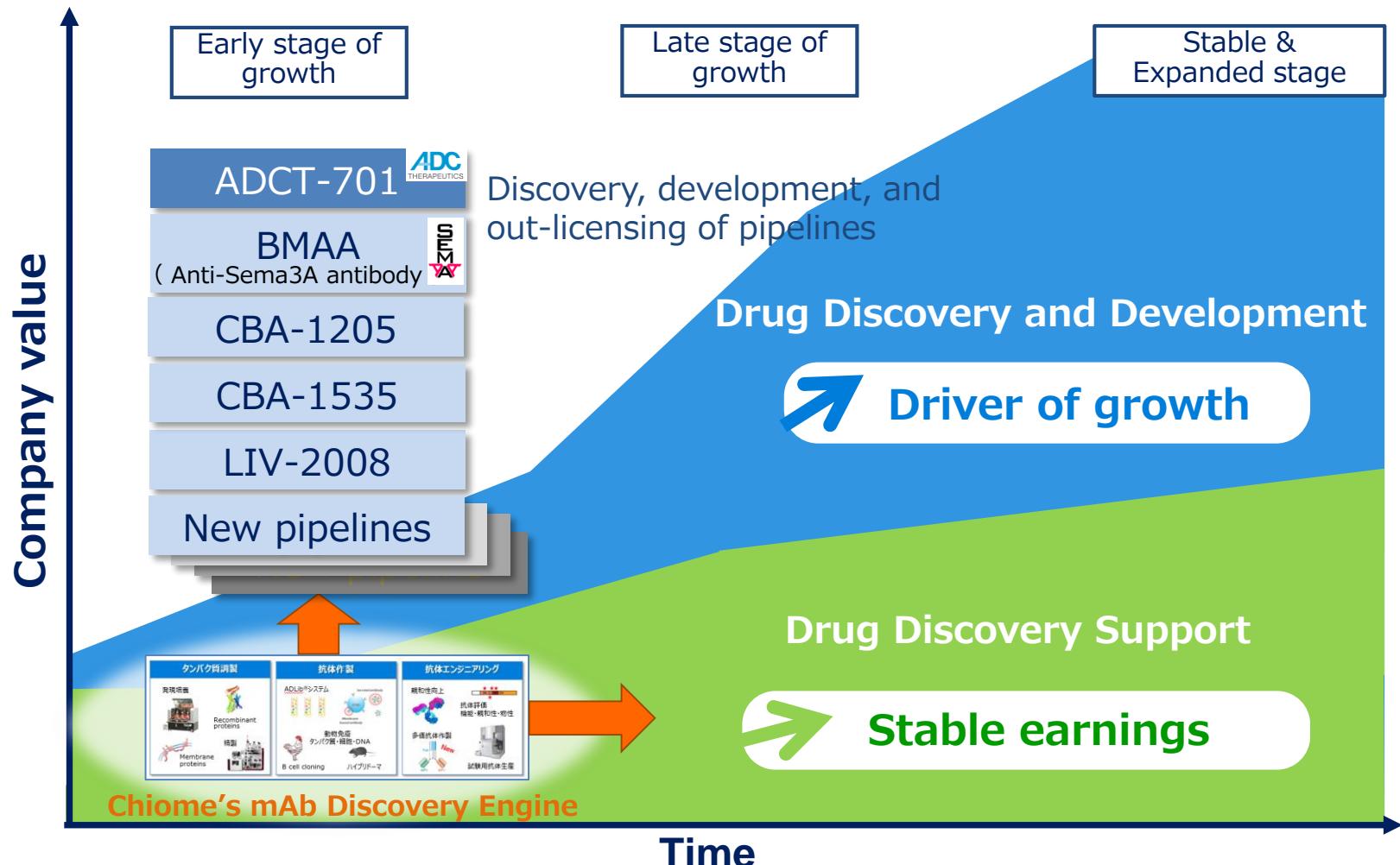
### Drug Discovery and Development

Development of therapeutic drug and diagnostic agent

### Drug Discovery Support

Contract service for drug discovery

## Core technology will sustain continuous development of therapeutic antibody while offering higher quality of service





# Shine light on unmet needs. Bring a brighter future to patients.

To accelerate drug discovery and development of mAb  
for therapeutics to overcome current medical unmet-needs



- Materials and information provided during this presentation may contain so-called “forward-looking statements.” These statements are based on current expectations, forecasts and assumptions that are subject to risks and uncertainties, which could cause actual outcomes and results to differ materially from these statements.
- Risks and uncertainties include general industry and market conditions, and general domestic and international economic conditions such as interest rate and currency exchange fluctuations.
- The Company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.