

Supplement Documents for Financial Results Q2 FY12/21

Aug 13, 2021



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

Chiome Bioscience Inc.



- 1. Overview of Q2 FY12/21 “Financial results”**
- 2. Overview of Q2 FY12/21 “Operation highlights”**

Appendix.

Corporate information

Pipeline information



Overview of Q2 FY12/21 “Financial results”

Financial results: Profit and Loss



(JPY in millions)

| | Q2 FY2020 | Q2 FY2021 | Increase (decrease) | |
|------------------------------|-----------|-----------|------------------------|---|
| Net sales | 173 | 384 | 211 | |
| Drug Discovery & Development | 1 | 103 | 101 | • Upfront payment of the License Agreement with Shanghai Henlius Biotech, Inc. for LIV-2008/2008b |
| Drug Discovery Support | 171 | 281 | 110 | • Growth in business with domestic pharmaceutical companies |
| COS/SGA | 909 | 800 | (108) | |
| R&D Expense | 608 | 459 | (149) | • Decrease in the cost of study drug manufacturing and CRO in CBA-1205 program |
| Other costs | 300 | 340 | 40 | • Up in material costs due to increased business transactions |
| Operating Loss | (735) | (415) | 320 | |
| Ordinary Loss | (735) | (409) | 326 | |
| Net Loss | (736) | (408) | 327 | |

Financial results: Balance Sheet



(JPY in millions)

| | As of Dec. 31, 2020 | As of Jun. 30, 2021 |
|----------------------------------|------------------------|------------------------|
| Current assets | 3,248 | 3,087 |
| (Cash on hand in banks) | 2,686 | 2,301 |
| (Other current assets) | 562 | 786 |
| Non-current assets | 246 | 241 |
| Total assets | 3,494 | 3,328 |
| Current Liabilities | 342 | 427 |
| Non-current liabilities | 41 | 42 |
| Total liabilities | 384 | 469 |
| Total net assets | 3,109 | 2,858 |
| Total liabilities and net assets | 3,494 | 3,328 |

Financial results: Cash Flows



(JPY in millions)

| | Q2 FY2020 | Q2 FY2021 |
|---|-----------|-----------|
| Cash flows from operating activities | (528) | (560) |
| Cash flows from investing activities | — | — |
| Cash flows from financing activities | 894 | 176 |
| Net increase (decrease) in cash and cash equivalents | 366 | (384) |
| Cash and cash equivalents as of the beginning of the year | 2,105 | 2,686 |
| Cash and cash equivalents as of the end of the year | 2,472 | 2,301 |

【Cash flows from operating activities】

- Expenses for clinical development for CBA-1205 and CMC development for CBA-1535, SG & A expenses

【Cash flows from financing activities】

- Proceeds from issuance of shares resulting from exercise of 17th subscription rights to shares.



Overview of Q2 FY12/21 “Operation highlights”



Drug Discovery and Development Business

This is business to obtain revenues such as upfront, milestone, and royalty payments relating to out-licensing of patents of pipeline product and drug candidates, and also, income from collaborative research. It drives our future growth.

Drug Discovery Support business

This is business to obtain revenues from antibody generation service by using platform technology that Chiome possesses to support drug discovery research at pharmaceutical companies, or for diagnostic and research purposes at academia or institutes on fee-for-service scheme. It secures constant revenue stream.



Drug Discovery and Development – Pipeline

CBA-1205

Humanized afucosylated
anti-DLK1 antibody

- Dose escalation part of Phase I Study to see safety is on-going well on track at National Cancer Center Hospital.
- Extended the dose escalation part to higher doses than originally planned in aiming for enabling to set broader safety margin.
- Expect moving to Part 2 in HCC patients at the end of 2021 or the first half of 2022.

CBA-1535

Humanized anti 5T4/WAIF1
antibody, multi-specific antibody

- There has been some delay in CMC development from the initial plan affected by the COVID-19 pandemic.
- However, the schedule for the regulatory submission for Phase 1 initiation has not been changed.
- Under the current uncertain situation of COVID-19 pandemic, it is being considered to conduct clinical trials in Japan where COVID-19 has less impact on development, not in the UK as originally planned.

BMAA

Humanized anti-
Semphorin3A antibody

- Collaborative Development License and Exclusive Option Agreement with Sema Thera Inc. was terminated as of May 14.

PCDC

Humanized anti-CDCP1
antibody

- Initiate licensing work for ADC purpose in parallel with basic research.
- A patent application has been published in July 2021.

Discovery PJ

- To expand pipelines; initiate new joint research with potential partner across the world, leverage Tribody technology.



Pipeline - Out-Licensed programs

LIV-2008

Humanized anti-TROP2
antibody

- License agreement with Henlius for development, manufacturing and marketing of LIV-2008/2008b and its derivatives in China is signed in January 2021.
- Ongoing implementation evaluations at multiple overseas pharmaceutical companies.

ADCT-701

- ADC Therapeutics is continuing preparations for an IND.

Drug Discovery Support Business

Deals with pharmaceutical companies

- Growth of business with key clients in Japan.
- Execution of the Collaborative Research Agreement with Mologic Ltd. for antibody discovery and development.

Core Technology

ADLib[®] system

- Participate in the Grant Program of the Japan Agency for Medical Research and Development (AMED)
 - ✓ Collaborative research in the field of infectious diseases
 - ✓ Development of the ADLib[®] System Technology to contribute the program

Drug Discovery and Development -Pipeline



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 | | | | |
| LIV-2008 /2008b | TROP-2 | Oncology | | | | |

Pipelines

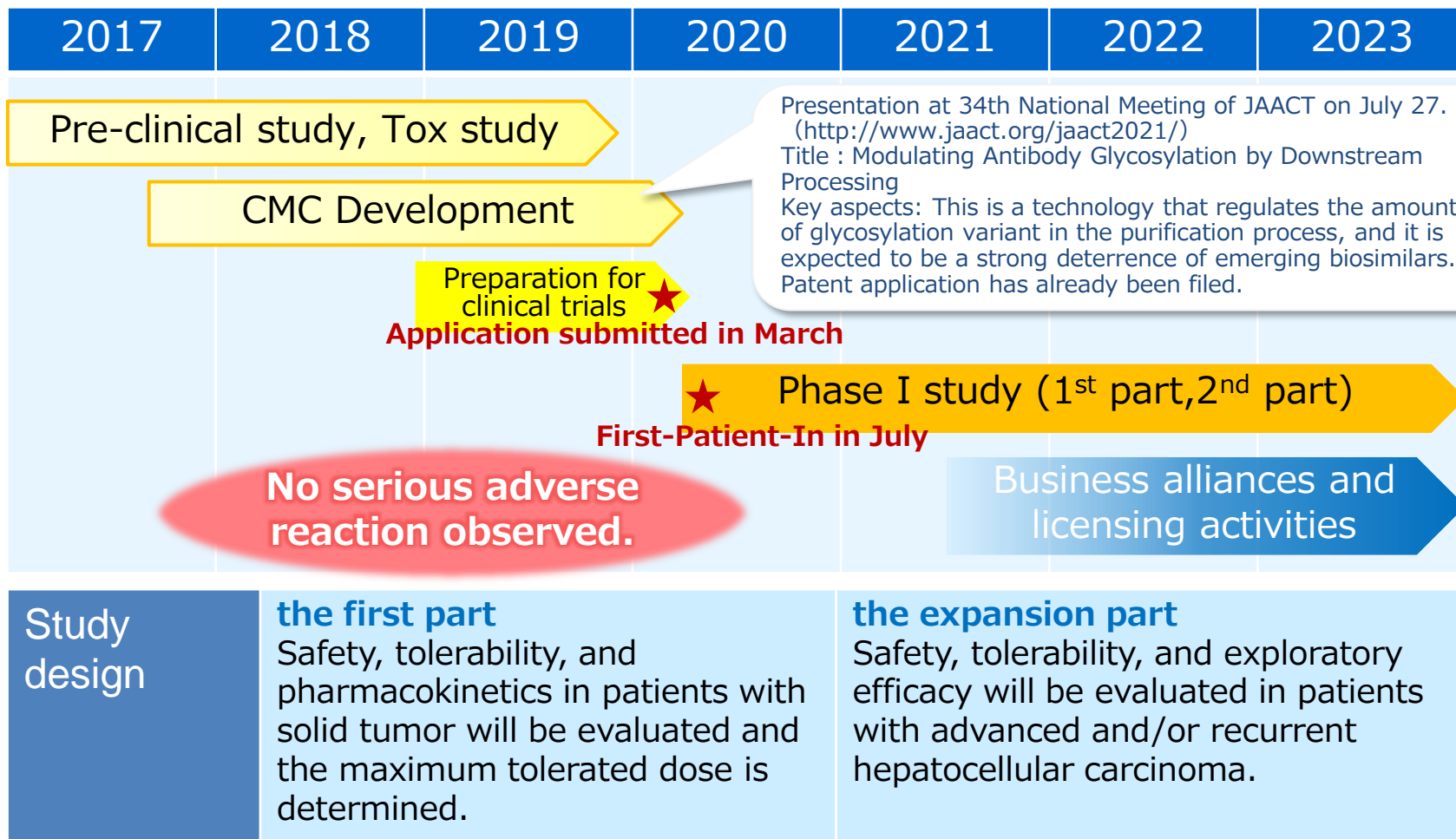
★ First in class

| Project | Target | Therapeutic Area | Basic research, Drug Discovery | Preclinical Study | Clinical Trials | Status |
|-------------------------------|-----------------|---------------------------------------|--------------------------------|-------------------|-----------------|-----------------------|
| ★ CBA-1205 (ADCC enhanced) | DLK-1 | Oncology | | | | Phase 1 |
| CBA-1535 (Tribody™) | 5T4×CD3 ×5T4 | Oncology | | | | Preparing for Phase 1 |
| ★ BMAA | SEMA3A | DME, Others | | | | Licensing opportunity |
| ★ PCDC | CDCP1 | Oncology /ADC | | | | Licensing opportunity |
| Discovery PJ (5) | Undisclosed | Oncology infectious/ rare diseases | | | | — |

Drug Discovery and Development -Pipeline



Phase I study of CBA-1205 is on-going well on track.
Expect moving to the **expansion part in HCC patients in 2021.**

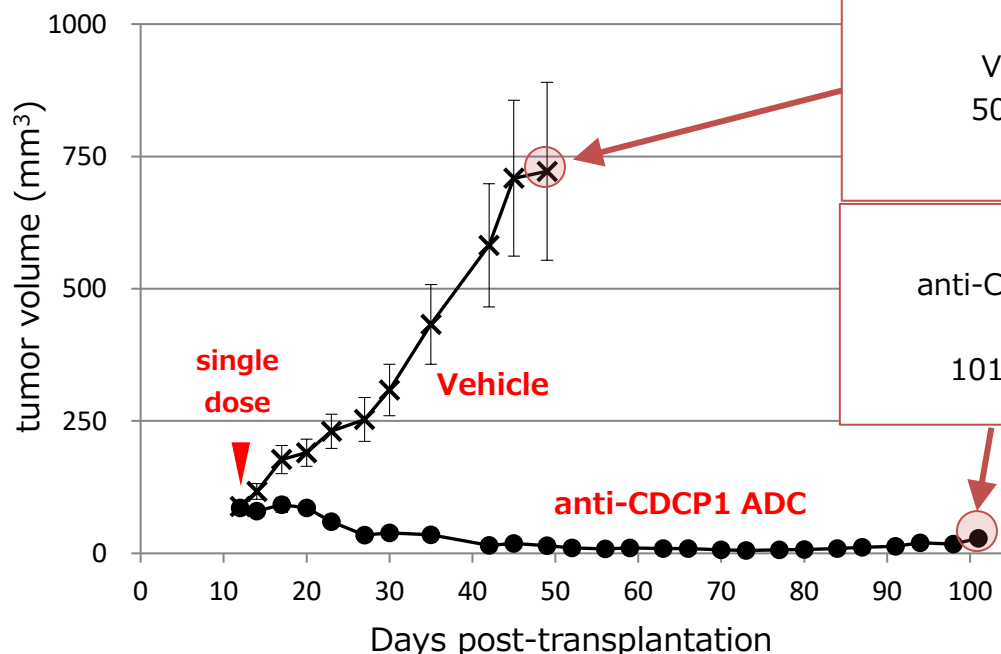




A patent application for PCDC "Anti-CDCP1 antibody" is published
 ~The antibody for highly effective antibody-drug conjugate against various solid tumors~

Patent :WO/2021/132427

Anti-tumor efficacy against prostate cancer xenograft model



—×— Vehicle (Phosphate buffered saline)
 —●— Anti-CDCP1 ADC (1 mg/kg dosage)

Vehicle
50 days



anti-CDCP1
ADC
101 days



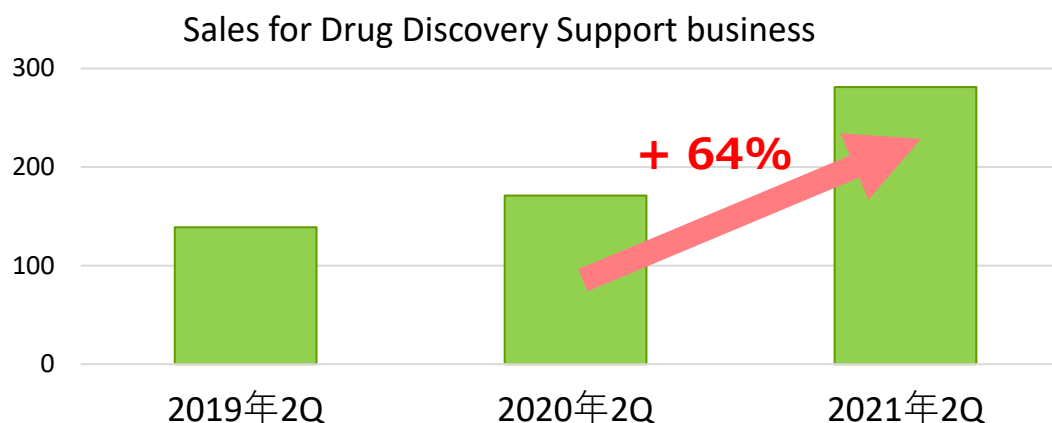
arrow : tumor

Tumors overexpressing CDCP1

- ◆ Lung
- ◆ Head & Neck
- ◆ Esophageal
- ◆ Colorectal
- ◆ Cervical
- ◆ Breast
- ◆ Ovarian
- ◆ Prostate etc.

Sales increase in contract service

- Sales of JPY 281 mil., increased by 64% year-on-year, due to growth of business with key clients in Japan, and Mologic with whom a joint research agreement was signed.



<Major clients>

| | Contract date |
|---|---------------|
| Chugai Pharmaceutical Co., Ltd. | Jun. 2011 |
| Chugai Pharmabody Research Pte. Ltd | Aug. 2012 |
| Mitsubishi Tanabe Pharma Co., Ltd. TANABE RESEARCH Laboratories U.S.A., Inc. | Dec. 2016 |
| Ono Pharmaceutical Co., Ltd. | Oct. 2018 |
| Kyowa Kirin Co., Ltd. | Jul. 2019 |



Execution of the **Collaborative Research Agreement** with Mologic Ltd. for antibody discovery and development

- ✓ Collaborative Research Agreement for antibody discovery and development for diagnostic use with Mologic Ltd. was conducted May 14, 2021. Under this Collaborative Research Agreement for up to 1 year, Chiome will generate antibodies against several targets for use diagnostic biomarkers utilising ADLib® system and Mologic will evaluate the antibodies by its technology and know-how for application of diagnostic test.
- ✓ Chiome will receive research fees from Mologic, and royalties if Mologic receives profits from the diagnostic products including antibodies generated by Chiome under the agreement.

Mologic Ltd.

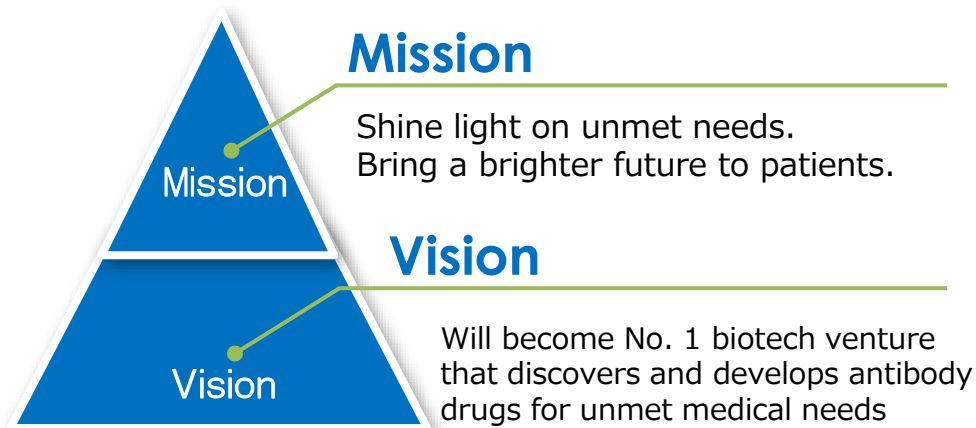
Mologic, headquartered in Bedfordshire, UK, is a leading developer of lateral flow and rapid diagnostic technologies, products and services. They are providing fast, reliable and accurate point-of care diagnostic. In the field of infectious disease, one of their focuses, they contribute and has great track records on global public health by developing and delivering diagnostic products for the regions where infectious diseases like Dengue fever are still a serious threat to human health. (<https://mologic.co.uk/>)



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 and Chief Executive Officer:
Shigeru Kobayashi, M.E.

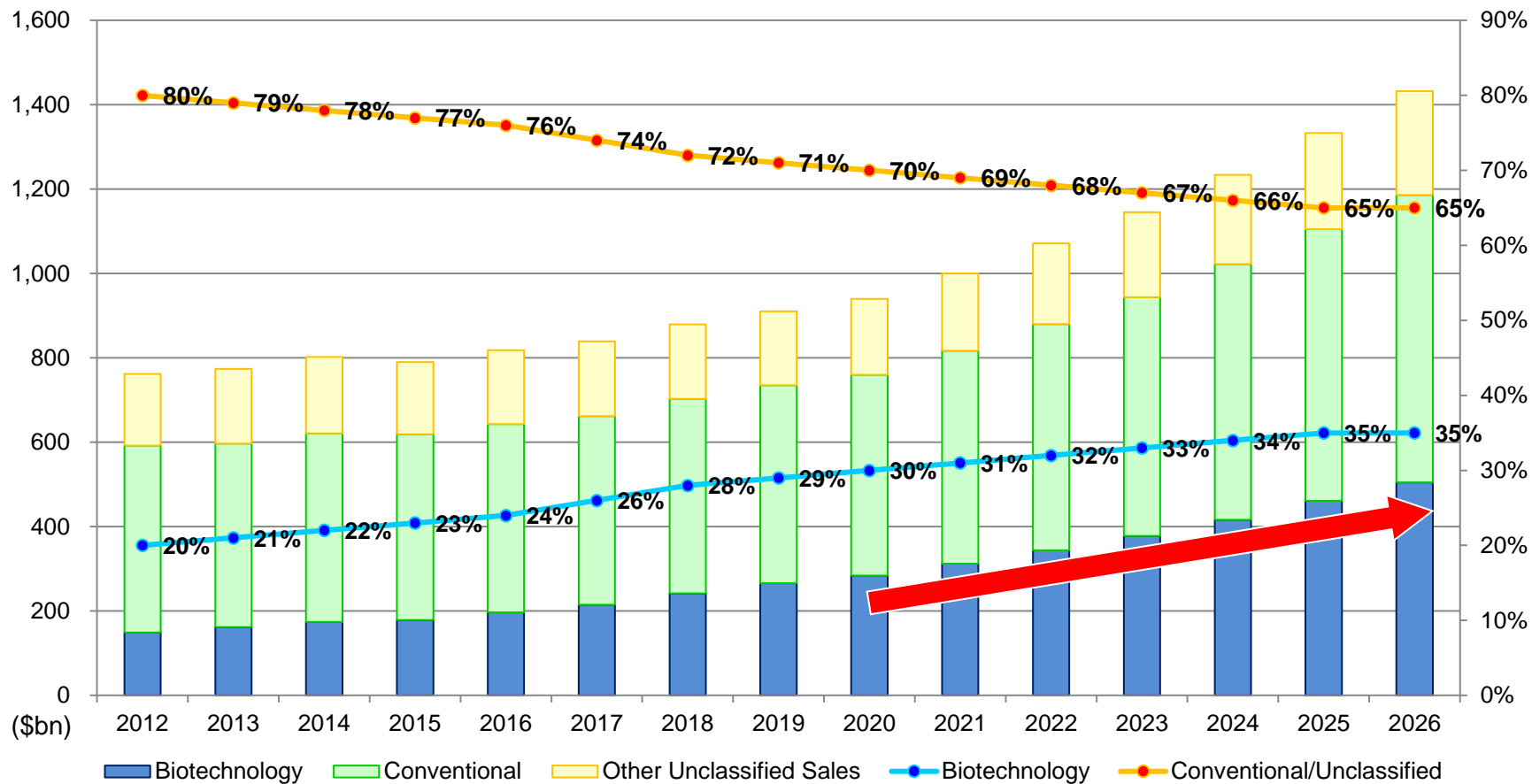


- Location :
<Head Office and Research Laboratories>
3-12-1Honmachi, Shibuya-ku, Tokyo
<Drug Discovery Laboratories>
2-13-3 Nogawahonchou, Miyamae-ku,
Kawasaki-city, Kanagawa
- Number of Employees :
58 (As of June 30,2021)
- Business :
Chiome Bioscience (4583.T), is a public company leveraging a proprietary monoclonal antibody generating technology, for drug discovery and development, as well as providing drug discovery supports.

Global Pharmaceutical Market Trends



Biotechnology, mainly antibody drugs driving growth in market



EvaluatePharma® World Preview 2020, Outlook to 2026



7 antibodies in the top 10 selling drugs worldwide

Sales ranking of prescribed drugs (2020)

| NO | Product | Company | Main indication | Modality | Sales (\$mil.) |
|----|-----------|-----------------------------|----------------------------------|---------------------|----------------|
| 1 | Humira | Abbvie/Eisai | Rheumatoid arthritis | Antibody | 20,389 |
| 2 | Keytruda | Merck | Oncology | Antibody | 14,380 |
| 3 | Eylea | Regeneron/Bayer/Santen | Age-related macular degeneration | Recombinant protein | 8,360 |
| 4 | Stelara | J&J | Psoriasis | Antibody | 7,975 |
| 5 | Opdivo | Ono/BMS | Oncology | Antibody | 7,888 |
| 6 | Enbrel | Amgen/Pfizer/Takeda | Rheumatoid arthritis | Recombinant protein | 6,346 |
| 7 | Trulicity | Eli Lilly | Diabetes | Peptide | 5,377 |
| 8 | Avastin | Roche | Oncology | Antibody | 5,321 |
| 9 | Ocrevus | Roche | Multiple sclerosis | Antibody | 4,612 |
| 10 | Remicade | J&J/Merck/Mitsubishi Tanabe | Rheumatoid arthritis | Antibody | 4,511 |

(Source) : Nikkei Biotech Online, partially edited

Differences between antibody and small molecule drugs



Antibody drug is a product of biotechnology

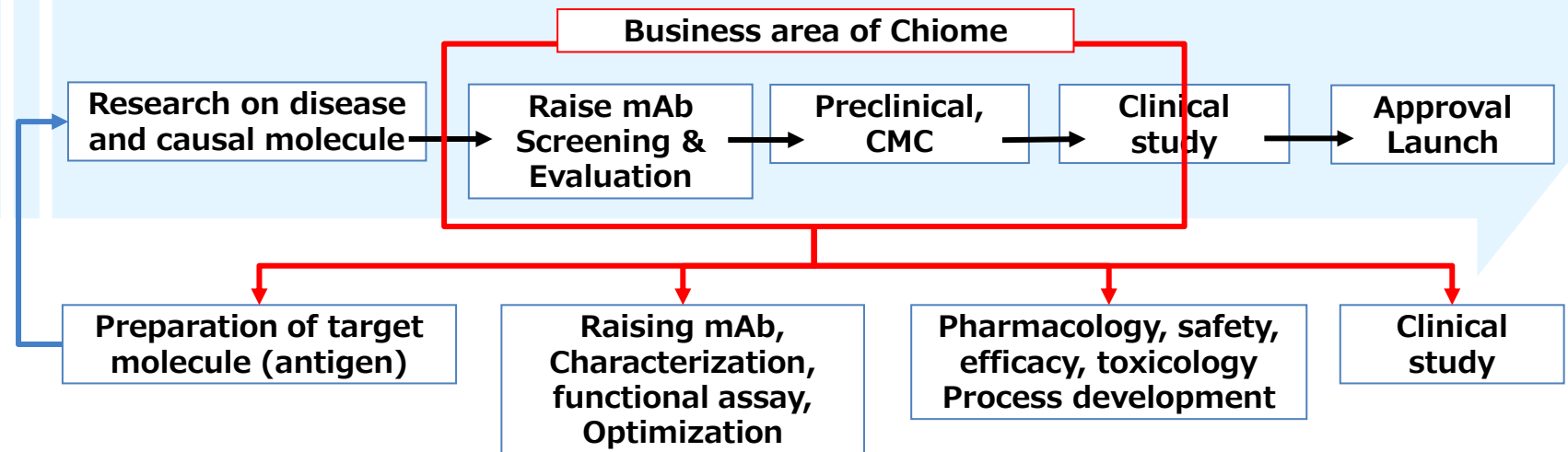
| | Antibody | Small molecule |
|-----------------------|--|--|
| Side effects | Antibody, in general, are safe and causes less side effect, since it specifically targets cells and tissues relating to the disease, but not normal cells and tissues. | It is safe and harmless when they are used according to the approved condition. |
| Efficacy | Antibody directly attacks targets or signals that causes the disease, i.e., antibody aims for cure of the disease, not supportive care. | Drugs, particularly molecularly targeted drugs, are designed to directly attack targets or signals that causes the disease, i.e., it aims for cure of the disease, not supportive care. Small molecule drugs are often used as supportive care such like a painkiller. |
| Administration route | In general, injection and infusion at a hospital and clinic (Self-injection is available in some cases) | Injection, Oral, dermal, nasal, or topical, etc. Many of those can be taken at home under physician's instruction. |
| PK | Longer half-life in serum, which allows less frequent dosing such as weekly or monthly. | Relatively short half-life in serum. In some cases, daily dosing, 1-3 times a day, are required. |
| Target specificity | High (It's an essential concept of antibody) | Depends on the drug |
| Manufacturing process | Culture of microorganism or animal cells | Chemical synthesis, Culture of microorganism |



Antibody drug discovery for diseases where high unmet medical needs exist

- Intractable diseases for which effective treatment is not available
- Diseases for which some treatments are available, but not a drug
- Effective drugs are available, but are not easy to use or accompanies with hard side effects
- Difficult for a big pharma to focus on due to small number of patient

Process of drug discovery



Groups responsible for the roles above

Protein Group

Antibody Discovery

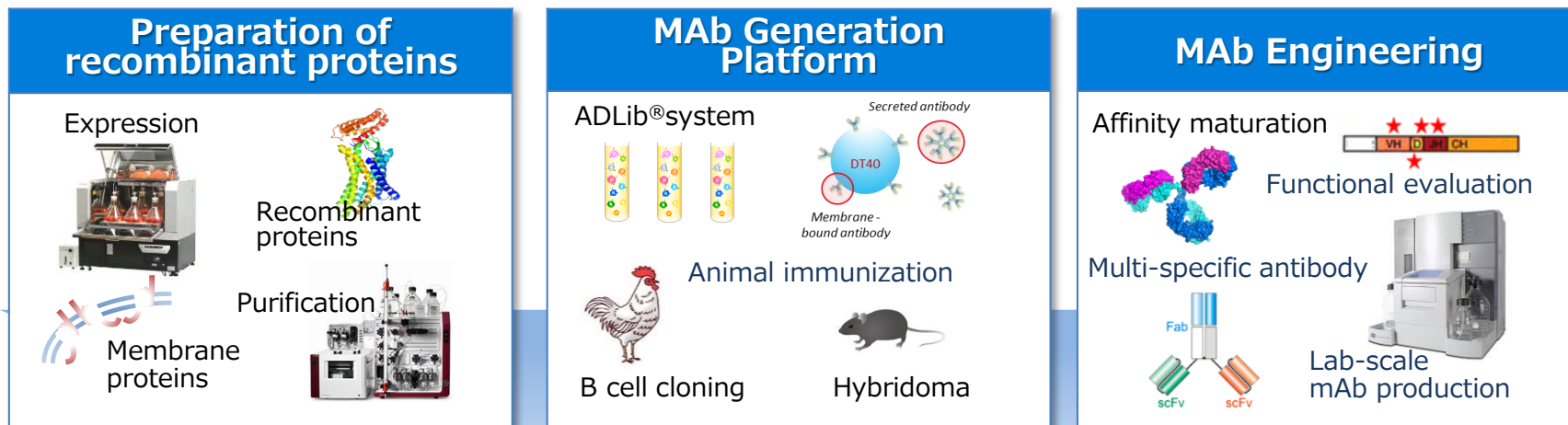
Antibody Discovery
Labs.

Clinical
Development

Core competence for developing business



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.

Advantage

Leveraging technology platforms to promote both Drug Discovery and Drug Discovery Support Businesses to Generate Sustainable Profits

Drug Discovery and Development

Development of therapeutic drug and diagnostic agent

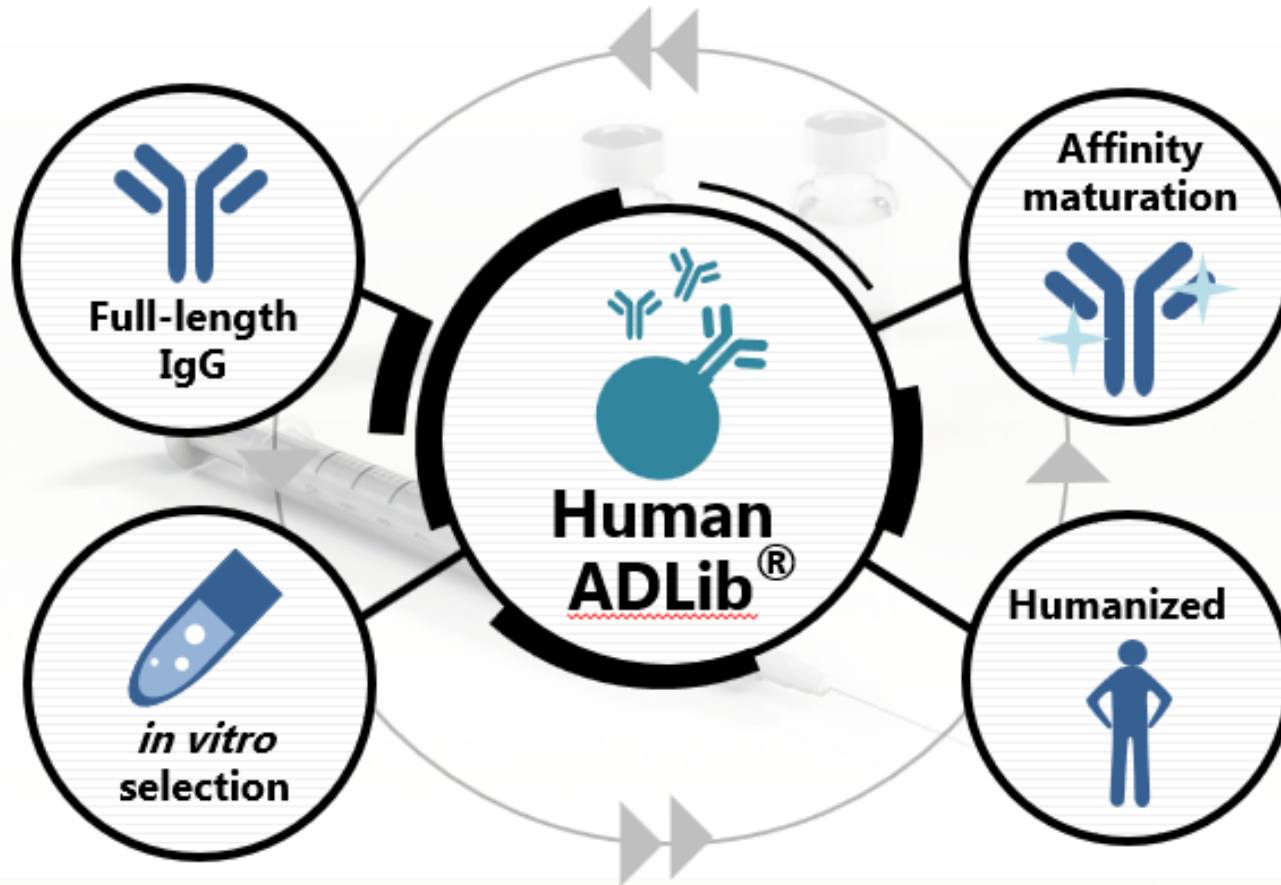
Drug Discovery Support

Contract service for drug discovery

Core technology : Human ADLib[®]System



One-stop-order platform for antibody drug discovery

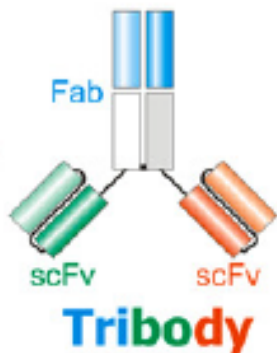


The ADLib[®]system offers a platform library with unique array space that adds seamless Affinity maturation function. It is a one stop order drug discovery and research tool that can complete all the steps necessary for antibody drug discovery such as selection, full-length IgG expression, humanization, and affinity maturation on 1 platform.

Core technology : Tribody™



Tribody™

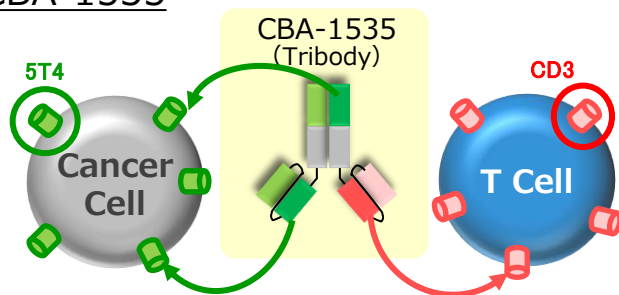


The Tribody technology enables the generation of multi-specific antibody products. This unique technology overcomes the key shortcomings of conventional mono- as well as of currently developed bi-specific antibody formats.



[Discover drug candidates utilizing Tribody technology](#)

CBA-1535



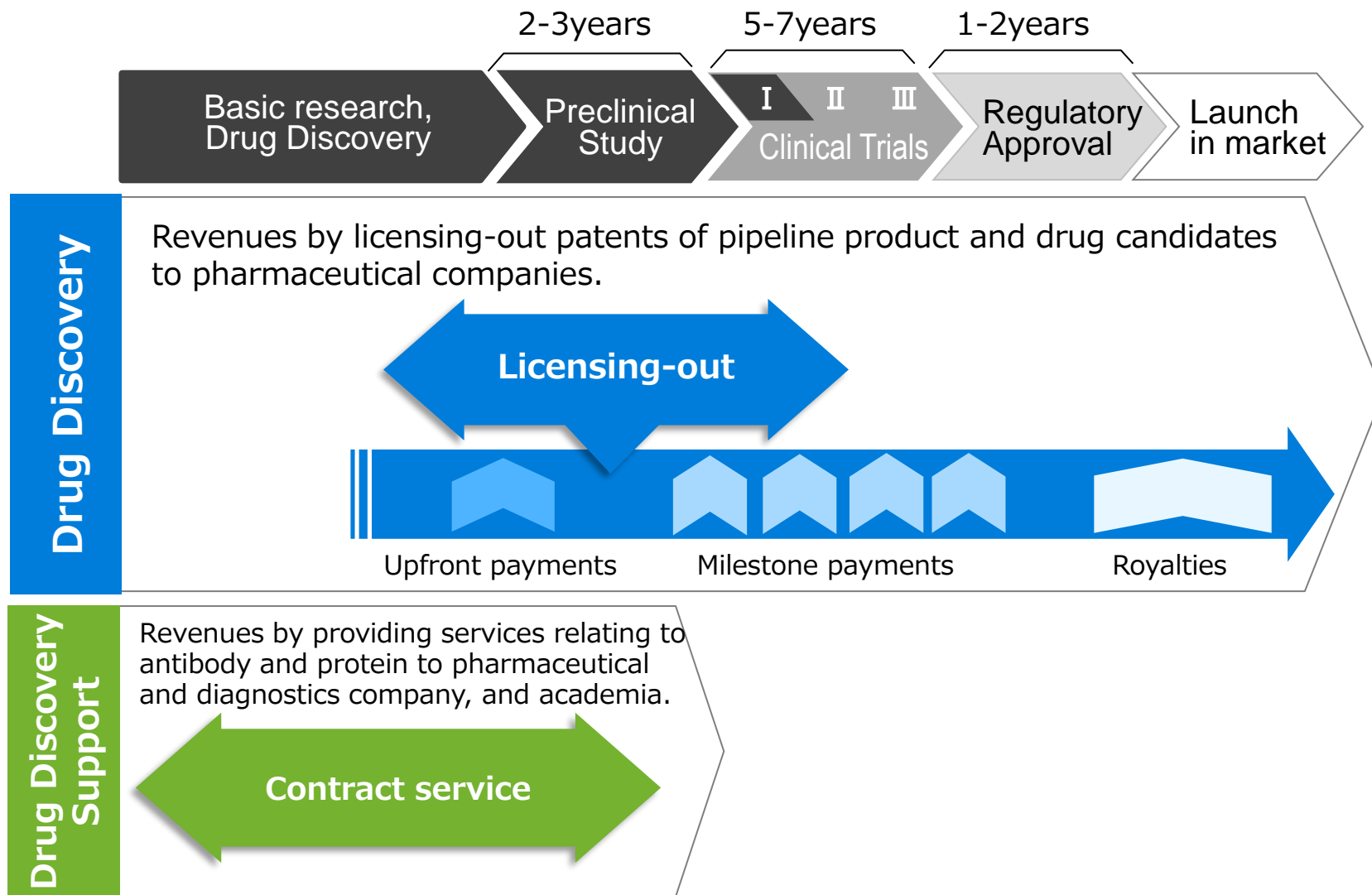
One of the binding sites can be designed to recruit immune cells (effector cells) with cytotoxic activity, such as T cells and NK cells, and the remaining 2 sites can be designed to bind to different epitopes of a cancer-specific antigen or to recognize different antigens expressed on the cancer cell surface.

Tribody™ enables creation of unique antibody by building multi-binding sites that bind to different antigen or epitope, which differentiate from conventional antibody. Chiome strives for developing an antibody drug with greater safety and higher efficacy.

Revenue Model



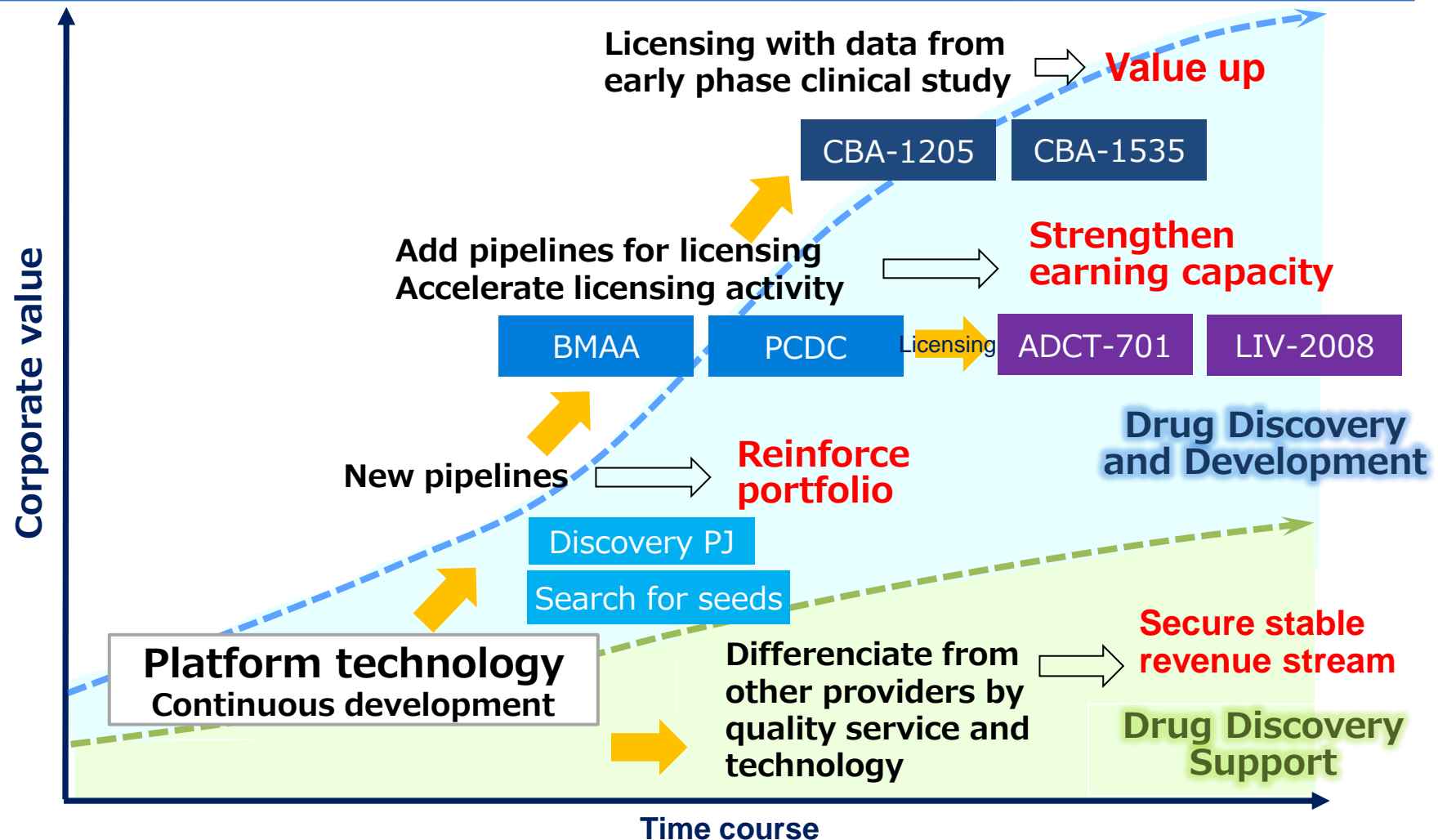
Drug development process and Chiome's revenue model



Business strategy for the future growth



Create candidate of innovative antibody drugs for unmet medical needs and pay maximum efforts to increase the corporate value by developing and licensing highly valuable antibodies.





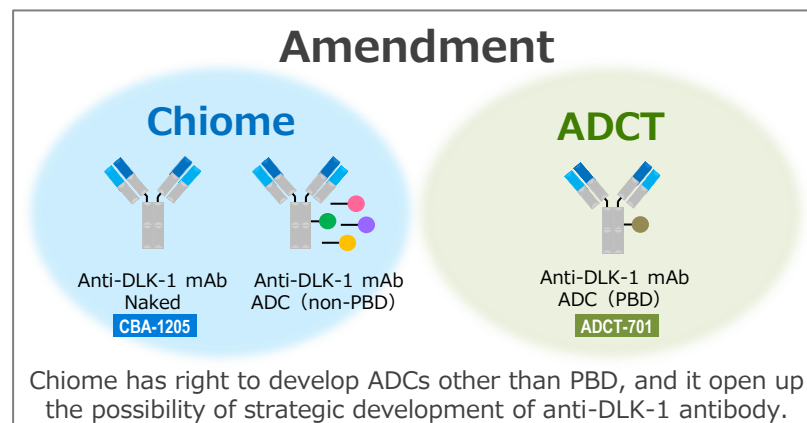
Appendix. Pipeline information

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



| | |
|------------------|---|
| Therapeutic Area | Liver cancer, lung cancer, neuroblastoma etc. |
| Origin | An Antibody Drug Conjugate (ADC) form of LIV-1205 that was licensed out to Switzerland-based ADC Therapeutics SA in September 2017. |
| Patent | Granted in Japan, US, EU, China etc. (Humanized anti-DLK1 antibody) |

- ✓ Under the License Agreement, 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".
- ✓ With the amendment executed in November 2020, Chiome obtains greater flexibility in advancing strategic drug development of anti-DLK-1 antibody, also increase the licensing opportunity and business potential of CBA-1205.
- ✓ ADCT has completed pharmacology and toxicology studies required for an IND submission and is continuing preparations for an IND.





LIV-2008 (Humanized anti-TROP2 antibody)



| | |
|------------------|--|
| Therapeutic Area | Breast cancer (TNBC), lung cancer, colorectal cancer etc. |
| Expectation | LIV-2008 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. |
| Patent | Granted in Japan, US, EU, China etc. |

- ✓ Chiome grants an exclusive license, with sublicensing rights, to Henlius for development, manufacturing and marketing of LIV-2008/2008b and its derivatives in China (including Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan region)
- ✓ Chiome also grants to Henlius an option right to develop, manufacture and sale in the rest of the world other than the initial territory.

(Henlius社HP : [HKEX-EPS 20210114 9583899 0.PDF \(windows.net\)](#))



CBA-1205 (Humanized afucosylated anti-DLK1 antibody)

First in class

| | |
|------------------|---|
| Origin | A humanized antibody generated by hybridoma technology in Livtech which Chiome acquired in 2015. |
| ADCC | GlymaxX (ProBioGen) |
| Therapeutic Area | Liver cancer, lung cancer, neuroblastoma etc. |
| Expectation | First-in-class therapeutic antibody targeting intractable cancers Providing new therapeutics for highly malignant tumors without effective therapeutic drugs including hepatocellular carcinoma. |
| Patent | Granted in Japan, US, Europe, China etc. |

- ✓ The first patient has been dosed CBA-1205 in First-in-Human Phase 1 study in July 2020.
- ✓ Dose escalation part of Phase I Study to see safety is on-going well on track at National Cancer Center Hospital.
- ✓ Expect moving to Part 2 in HCC patients in 2nd half 2021Implementation of combination study with anticancer drugs for CBA-1205 and file patent applications.

Market analysis of Liver Cancer



| | |
|----------------------|---|
| No. of patient※1 | 840,000 new cases worldwide in 2018 The second leading cause of cancer-related deaths. High incidence in Africa and Asian region. |
| DLK-1 expression※2 | Ca.20% of liver cancer patients and ca. 50% of lung cancer patients express DLK-1 |
| Standard treatment※3 | Surgery is the first choice if it is resectable 1. Surgery : Resection of tumor 2. Ablation : percutaneous ethanol injection, Radiofrequency ablation 3. Embolization Drug therapy is applicable for post-surgery, unresectable advanced stage. |
| Competitor | Sorafenib, Lenvatinib, Atezolizumab - Bevacizumab |
| Market | Combination therapy of anti-PD-L1 antibody and anti-VEGF antibody was approved in September 2020. |

※1: <http://www.wcrf.org/int/cancer-facts-figures/data-specific-cancers/liver-cancer-statistics>

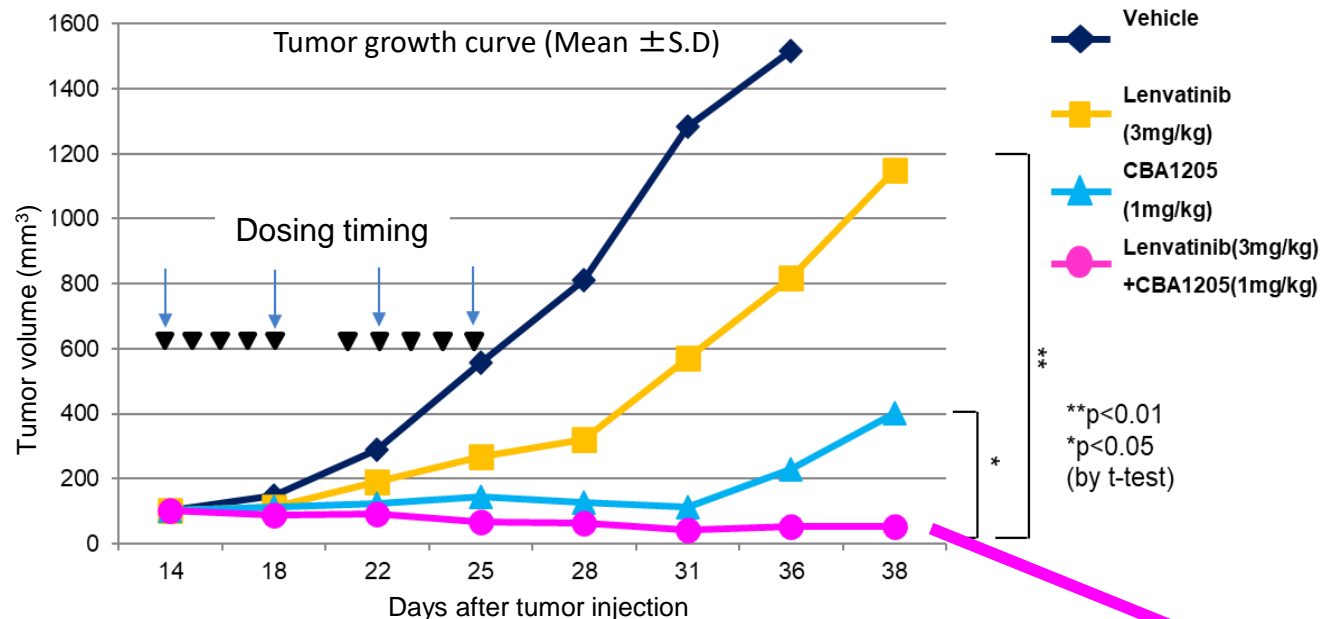
※2: J. Biochem.: 148, 85-92 (2010)

※3: <https://ganjoho.jp/public/cancer/liver/treatment.html>

A patent application, "**Combination of CBA-1205 and Lenvatinib**" filed in 2019 is published

Mouse xenograft study: Hep3B hepatoma model CBA-1205 + Lenvatinib

Patent: WO/2020/204033



Dosing regimen

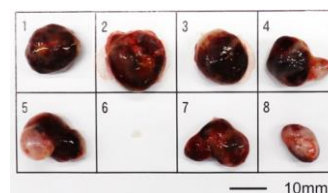
CBA-1205 : i.p., twice a week x 2 weeks

Lenvatinib: p.o., daily x 5 days a week for 2 weeks

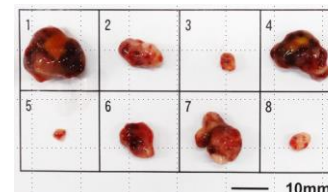
Remarkable tumor regression was observed in combination of CBA-1205 and Lenvatinib in HCC xenograft treatment model.

Tumors on Day 38

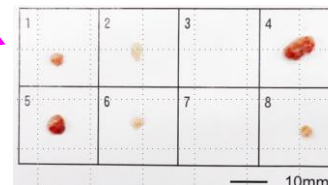
Lenvatinib (3 mpk)



CBA-1205 (1 mpk)



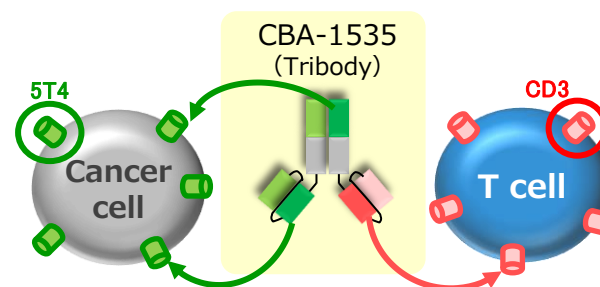
LEN (3 mpk) + CBA-1205 (1 mpk)



CBA-1535 (Humanized anti 5T4 antibody, multi-specific antibody)

| | |
|------------------|--|
| Origin | CBA-1535 is a T-cell engager, trispecific antibody, directed against the 5T4 tumor antigen, a protein found on various solid tumors and is thought to be involved in metastasis. |
| Therapeutic Area | Malignant mesothelioma, small cell lung cancer, non small cell lung cancer, TNBC etc. |
| Expectation | First-in-class therapeutic antibody with tri-specific format Offer a new treatment option for a disease which has poor prognosis and where there is only few effective treatment. |
| Patent | Granted in Japan, UK, US. Pending in Europe etc. |

- ✓ Regulatory submission for Phase 1 initiation is expected at the end of 2021 or later. However, due to the pandemic of COVID-19 in the UK, study in Japan should be considered as an alternative plan.
- ✓ CMC development has made progresses on schedule to date, however, there is some uncertainty for the future schedule due to COVID-19 pandemic in Europe. Situation needs to be watched carefully.





BMAA (Humanized anti-Semaphorin3A antibody)

First in class

| | |
|------------------|---|
| Origin | A humanized antibody generated using the ADLib® System. Demonstrated as a selective antibody possessing functional inhibitory activity through collaboration with Professor Yoshio Goshima in Yokohama City University. |
| Therapeutic Area | Diabetic macular edema (DME) |
| Expectation | To be applied in a wide range of disease areas including inflammatory and CNS diseases which involve SEMA3A. Providing treatment methods for patients who do not respond to traditional therapeutics for diabetic retinopathy, which is the primary medical condition causing loss of sight in adulthood. |
| Patent | Granted in Japan, US and Europe etc. |



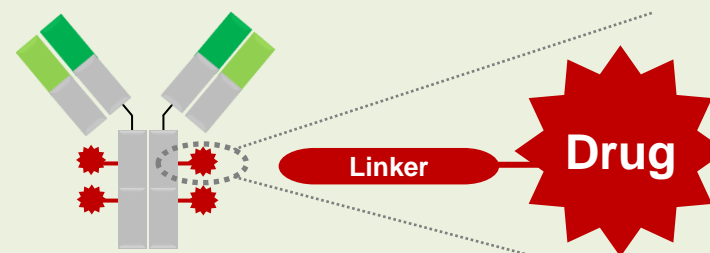
PCDC (humanized anti-CDCP1 antibody for antibody drug conjugate)

First in class

| | |
|----------------------|--|
| Origin | Humanized anti-CDCP1 antibody discovered by Chiome's proprietary antibody technologies. |
| Potential indication | Solid tumors (lung, colorectal, pancreatic, breast, ovarian etc.) |
| Opportunities | CDCP1 is a First-in-class therapeutic target highly expressed in broad range of solid tumors, including standard-of-care resistant cases. High efficacy and safety expected from binding and toxicological profiles of the antibody. |
| Patent application | "ANTI-CDCP1 ANTIBODY" : The international patent application is filed under the PCT. |

- ✓ Open for licensing opportunities as an antibody for ADC
- ✓ Additional *in vivo* efficacy/safety studies are ongoing.
- ✓ Patent application was published from WIPO (7/2021)

Antibody-Drug Conjugate Technology





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.