THE BIOTECHNOLOGY COMPANY™

Annual Report **2018**

TAKARA BIO INC.

Takara Bio Group's Business Strategy

Takara Bio positions its Bioindustry Business as a stable revenue base providing research reagents, scientific instruments, and various contracted services to universities and companies around the world. Building on this base, and under the stable growth of our AgriBio Business, we are investing R&D funding into our Gene Therapy Business, to encourage broader expansion in an area set to see further growth in the future.

Stable Profit Bioindustry Business

Bioindustry Business Products and Services

Research Reagents and Scientific Instruments
Research/Manufacturing Contracted Services

Marketed Japan's first restriction enzymes (reagents for genetic engineering research) in 1979. Through both its research support and CDMO fields, Takara Bio currently provides high-quality products and services to life science researchers around the world.

Future Growth Gene Therapy Business

Clinical Development Projects in Progress

C-REV(HF10)
NY-ESO-1-siTCR™ gene therapy
CD19-CAR gene therapy

Takara Bio is engaged in clinical development projects to achieve quick commercialization of gene therapies for cancer, et al. We are doing so through base technologies including the RetroNectin® Method for highly-efficient gene transduction.

Stable Growth AgriBio Business

AgriBio Business Products and Services

Research into food functionality
Mushrooms

While proving the functionality of foods utilizing biotechnologies, Takara Bio is developing a business that leverages our techniques for large-scale mushroom production.

THE BIOTECHNOLOGY

Contributing to the health of humankind through the development

History of Takara Bio

■ Bioindustry Business ■ Gene Therapy Business ■ AgriBio Business ■ History

1925 ■ Established Takara Shuzo Co., Ltd.

1970 ■ Developed the world's first large-scale production technology for Bunashimeji mushrooms

1973 ■ Licensed Bunashimeji large-scale production technologies to JA ZEN-NOH Nagano

1979 ■ **Commenced sales of the first domestically produced restriction enzymes as reagents for genetic engineering research**

1985 ■ Began DNA synthesis services

1988 ■ **Acquired exclusive distribution rights in Japan for a gene amplification system using PCR technology**

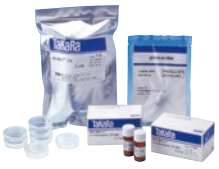
1990 ■ Began DNA sequence analysis services

1993 ■ Established Takara Biotechnology (Dalian) Co., Ltd. in China

■ Obtained worldwide broad-ranging, PCR-related patent licenses

1995 ■ Established Takara Biomedical Europe S.A. (currently Takara Bio Europe S.A.S.)

■ **Developed the RetroNectin® Method for highly-efficient retroviral transduction in hematopoietic stem cells**



■ Established Bohan Biomedical Inc. (currently Takara Korea Biomedical Inc.)

■ Began genetic testing services

1996 ■ Began sales of the Fucoidan series

2000 ■ Established DRAGON GENOMICS CO., LTD. (merged in 2002)

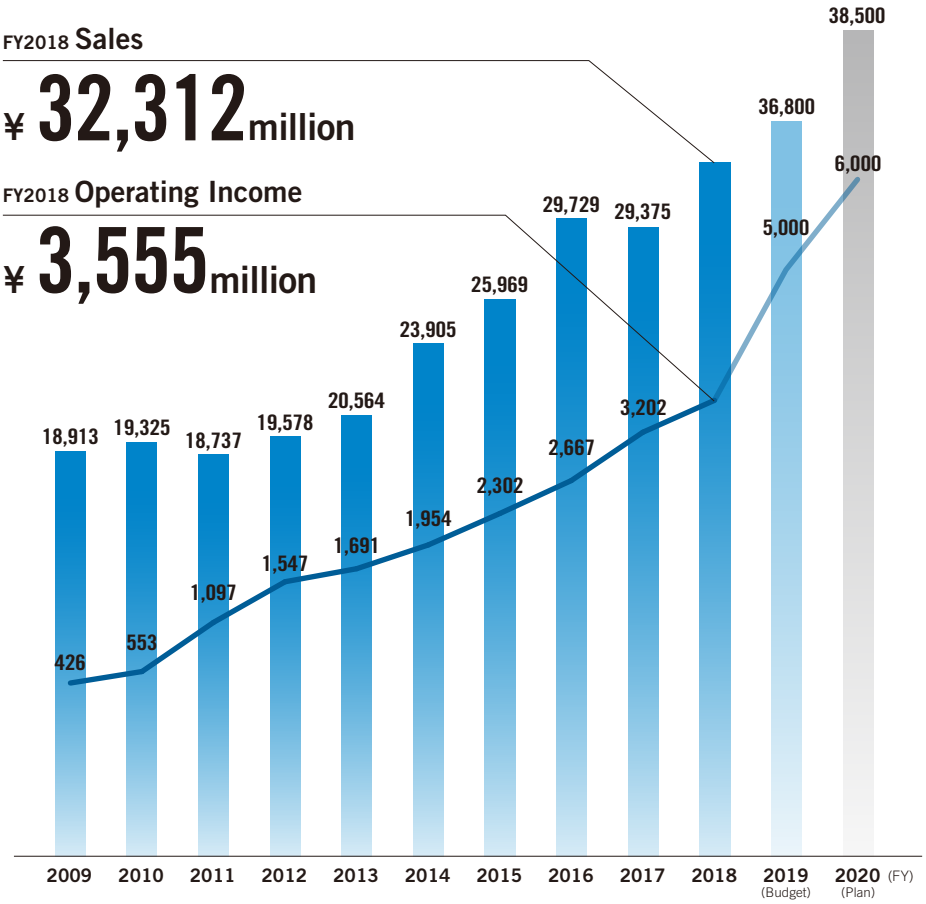
■ Launched full-scale genetic analysis services

2001 ■ Established Mizuho Norin Co., Ltd.

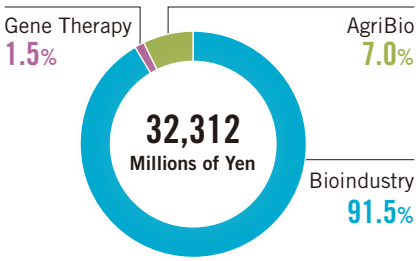
Sales and Operating Income (Millions of Yen)

FY2018 Sales
¥ 32,312 million

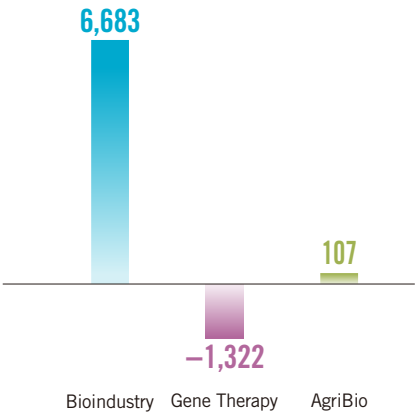
FY2018 Operating Income
¥ 3,555 million



Sales by Business Segment
(FY2018)



Operating Income by Business Segment
(FY2018)



COMPANY™

of revolutionary biotechnologies such as gene therapy

2002 ■ **Established Takara Bio Inc.**
Took over Takara Shuzo Co.'s biotechnology business and established Takara Bio Inc. in the city of Otsu, Shiga.
■ Established Takara Bio Farming Center Inc.

2004 ■ Established Takara Biomedical Technology (Beijing) Co., Ltd.
■ Listed on the TSE Mothers Index
■ Commenced large-scale commercial production of Honshimeji mushrooms

2005 ■ Established Takara Bio USA Holdings Inc.
■ Acquired U.S.-based Clontech Laboratories, Inc. (currently Takara Bio USA, Inc.)

2006 ■ Began next-generation sequence analysis services

2007 ■ Established KINOKO CENTER KIN INC.

2009 ■ Began iPS cell production services

2010 ■ Acquired C-REV business

2011 ■ Established DSS Takara Bio India Pvt. Ltd.

2013 ■ Began genome editing services

2014 ■ Acquired Cellectis AB (currently Takara Bio Europe AB)

■ Completed construction of the Center for Gene and Cell Processing; Began full-scale CDMO business providing manufacturing and development support services for biopharmaceuticals, etc.

2015 ■ The Center for Gene and Cell Processing obtained accreditation of "foreign cell processor" to conduct specific processed cell manufacturing

■ **Construction completed for new research facility in Kusatsu, Shiga; Headquarters functions relocated**

2016 ■ Changed its listing to the First Section of the Tokyo Stock Exchange

■ Obtained CAP-LAP certification for the contracted genetic analysis business

2017 ■ Acquired Rubicon Genomics, Inc. and WaferGen Bio-systems, Inc.

2018 ■ **Announced new establishment plan for research and manufacturing facilities for regenerative medical products**

■ Designated NY-ESO-1-siTCR™ as a product under the "SAKIGAKE Designation System"

Aiming for "Quantum Leap" growth as a global industrial company for regenerative medical products

Under our corporate philosophy of "Contributing to the health of humankind through the development of revolutionary biotechnologies such as gene therapy," we are working to strengthen our three business segments and the business base that supports them. Based on the recent progress of our businesses and on changes to the business environment, we made an upward revision to the Medium-Term Management Plan 2020 that we launched last year. In addition, in order to adapt to the expanding CDMO business, we have made the decision to undertake new investments in R&D facilities. We will also seek approval for the first gene therapy product for cancer in Japan.

Koichi Nakao
President

FY2018 Business Performance

Robust performance in contracted services and contribution from new consolidated subsidiaries

In net sales for the fiscal year under review, contracted services as well as the contribution from new consolidated subsidiaries rose significantly by 10.0% year-over-year to ¥32,312 million. The cost of sales grew by 9.9% year-over-year, in line with net sales to reach ¥13,657 million, while gross profit increased by 10.0% year-over-year to ¥18,655 million. Selling, general and administrative expenses increased by 9.8% year-over-year due to factors including personnel expenses in new consolidated subsidiaries and amortization of goodwill, reaching ¥15,099 million. Despite this, operating income grew by 11.0% year-over-year to ¥3,555 million.

In non-operating income and expenses, ordinary income increased by 7.9% year-over-year to ¥3,861 million, despite a worsening of accounts due to factors including a decline in interest income.

In extraordinary income and losses, income before income taxes increased by 19.8% year-over-year to ¥3,361 million due to factors including a decline in impairment loss for non-current assets. In addition, due to a decline in income tax adjustments accompanying the recording of deferred tax assets, net income attributable to owners of the parent increased by 72.6% year-over-year to ¥2,335 million.

Growth in the Bioindustry Business

Our CDMO business for regenerative medical products is growing steadily

Leveraging our experience and know-how with in-house clinical development of gene therapy products, we continue the efforts we have long made in the CDMO business, that supports the development and manufacture of regenerative medical products. In particular, we offer distinctive cell processing services, including the manufacture of virus vectors and production of gene-transduced cells, keys to the gene therapy field at the core of our regenerative medical products. We offer a full menu of tests for regenerative medical products, and are developing new test options together with outside research organizations. These measures bore fruit in fiscal 2018, resulting in a strong position for our contracted services, particularly the CDMO business. Moreover, to further expand our businesses, we are investing in new development and manufacturing facilities for regenerative medical products, aiming for completion of the facilities in December 2019.

Status in the Gene Therapy Business

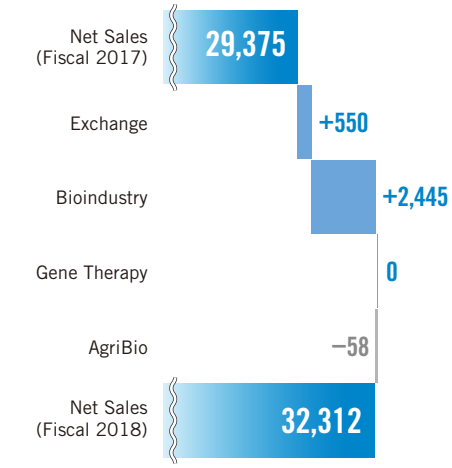
We are making steady progress in clinical development

The oncolytic virus HF10 has been given an international nonprietary name as Canerpaturev (C-REV). In our clinical development, Phase II clinical trials for melanoma are underway in Japan, as is preparation for approval application. Phase I clinical trials targeting pancreatic cancer are also in progress. In genetically engineered T cell therapy development, Phase I/II clinical trials are underway in Japan for our NY-ESO-1·siTCR™ gene therapy project targeting synovial sarcoma and our CD19·CAR gene therapy project targeting adult acute lymphoblastic leukemia.

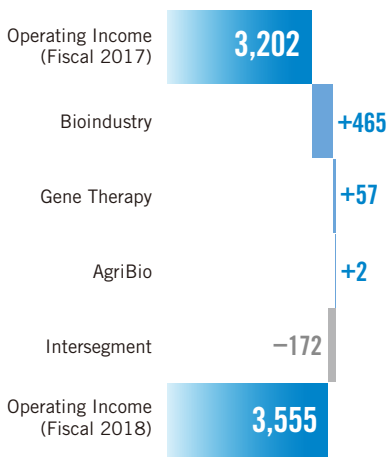
The NY-ESO-1·siTCR™ gene therapy product has been designated by the Ministry of Health, Labour and Welfare as a product under the “SAKIGAKE Designation System” for regenerative medical products. Our aim is to realize the therapy even earlier, leveraging the merits of undergoing prioritized clinical consultation on clinical trials, prior evaluation, review, etc.

In collaboration with other companies, we entered into an exclusive license agreement with Otsuka Pharmaceutical Co., Ltd. for the development and sales of the above two genetically engineered T cell therapy projects.

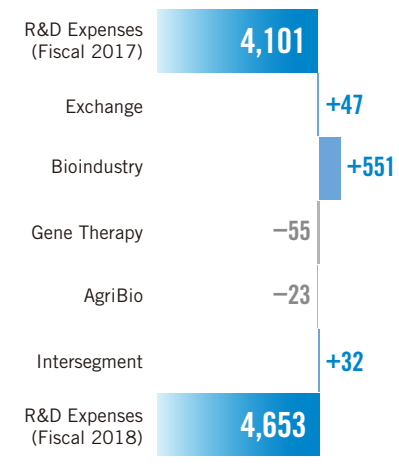
Consolidated Net Sales
(Millions of Yen)



Consolidated Operating Income
(Millions of Yen)



R&D Expenses
(Millions of Yen)



Shareholder Return

Takara Bio Group paid year-end dividends of ¥4.50 per share

Considering the management performance and financial condition overall, Takara Bio recognizes a basic policy aimed for profit contribution, positioning the profit distribution to shareholders as an important issue for management as well as enhancing the internal reserves to strengthen the R&D activities of three business segments: Bioindustry, Gene Therapy, and AgriBio businesses.

Specifically, our policy calls for a target rate of around 20% of forecasted income for the year calculated without taking into account extraordinary profit and loss stated on the consolidated financial statements.

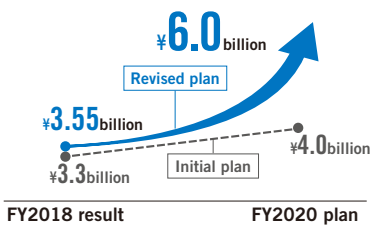
Under this basic policy, Takara Bio decided to upwardly revise the forecasted annual dividend for fiscal 2019 by of ¥0.50 per share from ¥4.00 to ¥4.50 due to the net income for the year beyond the forecast. We forecast a ¥6.00 per share annual dividend for fiscal 2020.

Medium-Term Management Plan

We raised the quantitative target of Takara Bio's Medium-Term Management Plan 2020

Under Takara Bio's Medium-Term Management Plan 2020 that was announced in May of last year, we strengthened the strategies of our Bioindustry Business, Gene Therapy Business, and AgriBio Business, along with the business base that supports these efforts. The overall policy is to increase our presence as a global industrial company for regenerative medical products, with dramatic growth as our goal. In the first year of the plan, our overseas research reagent business and our CDMO business grew stably. Projects in our Gene Therapy Business progressed steadily, and we engaged in collaboration with pharmaceutical companies in our two genetically engineered T cell therapy projects. Based on this progress in our businesses and on recent changes in the business environment, we upwardly revised our quantitative target for operating income, and revised our Medium-Term Management Plan to reflect changes that include an increase in R&D investments.

Takara Bio's Medium-Term Management Plan 2020 (Revised May, 2018)

Overall Objective	To strengthen Takara Bio's three business segments, namely, the Bioindustry, Gene Therapy, and AgriBio businesses, and the business base that supports these efforts, enhance Takara Bio's standing as a global industrial company for regenerative medical products, and achieve prodigious growth.
Quantitative targets following upward revision	Net Sales ¥38.5 billion　Operating Income ¥6.0 billion　R&D Expenses ¥5.6 billion
Key points of revision	■ Achievement of operating income target ahead of schedule  ■ Increase in R&D expenses; enhancement of research base 

Measures in the Bioindustry Business

Through the maximization of synergies with the two U.S. companies we acquired (WaferGen Bio-systems and Rubicon Genomics), we plan to accelerate our reagent and device business development overseas. In Japan, we increase our manufacturing capacity for regenerative medical products, and strengthen our CDMO business. We are also building a structure to accelerate new product development in research reagents, the core of our Bioindustry Business. We will further strengthen our technological base in order to continually generate gene therapy projects.

Overview of Bioindustry Business Measures

Overview of measures in each field	**Research reagents**	Rapid commercialization of leading-edge technologies with open innovation
	Contracted services	Structural development based on GCTP/GMP*1, CAP-LAP*2, and other quality assurance and accuracy control systems, in order to expand contracted services for regenerative medical products and clinical domains.
	Scientific instruments	Development of PCR-related products and systemized single-cell analysis by combinations of devices and reagents
Main R&D in Bioindustry Business		1. Basic technology and quality control techniques for regenerative medical products 2. Ultra-low input nucleic acid analysis methods 3. New technologies required for clinical sequencing 4. Industrial uses for PCR and expansion to the clinical domain 5. New genome editing-related technologies

*1 GCTP(Good Gene, Cellular, and Tissue-based Products Manufacturing Practices) refers to the Standards for Manufacturing Control and Quality Control for Regenerative Medical Products. GMP(Good Manufacturing Practice) refers to the Standards for Manufacturing Control and Quality Control for Pharmaceuticals.
*2 CAP (College of American Pathologists) is a U.S.-based organization whose primary functions include providing quality management system tools, accrediting laboratories, and providing education. LAP (Laboratory Accreditation Program) is an international clinical laboratory testing outcome evaluation program conducted once a year by CAP.

Measures in the Gene Therapy Business

In fiscal 2019, we plan to apply for approval of Canerpaturev (C-REV)*3, which is Japan's first gene therapy for cancer. We are advancing joint development with partners in Japan, and are seeking to do so with new partners overseas.

*3 The oncolytic virus HF10 has been given an international nonprietary name as Canerpaturev(C-REV). This report uses the international nonproprietary name.

Development Status of Gene Therapy Projects (as of April 2018)

Projects			Target disease	Region	Status	Partnerships
Oncolytic Virus	**Canerpaturev (C-REV)**		Melanoma	JP	Phase II trials in progress Approval application in FY2019	Otsuka Pharma
				U.S.	Phase II trials completed Phase II investigator initiated trials in progress	Preparation underway
			Pancreas cancer	JP	Phase I trials in progress	Otsuka Pharma
Engineered T Cell Therapy	**siTCR™**	**NY-ESO-1**	Synovial sarcoma	JP	Phase I/II trials in progress	Otsuka Pharma
			Solid cancer	JP	Phase I trials in progress	(Investigator initiated)
			Solid cancer	CA	Phase Ib investigator initiated trials in progress	Preparation underway
		MAGE-A4	Esophageal cancer, etc.	JP	Phase I trials in progress	(Investigator initiated)
	CAR	**CD19**	Adult ALL*4	JP	Phase I/II trials in progress	Otsuka Pharma

*4 ALL: Acute lymphoblastic leukemia

Measures in the AgriBio Business

Takara Bio is improving its structure for ongoing stable profitability in our functional food business and mushroom business. In the functional food business, we are building a system for the stable provision of products in accordance with the sales plans of Takara Healthcare Inc. In the mushroom business, we are aggregating the functions of our subsidiaries Mizuho Norin Co., Ltd. and KINOKO CENTER KIN INC. We will develop an efficient business through a structure that integrates manufacturing and sales, and will build brand strategies in line with the markets for the mushroom products.

in JAPAN

Business Strategy 1 Expanding support for R&D and manufacturing support of regenerative medical products

Takara Bio is focused on expanding its CDMO business, which handles development and production support for regenerative medicines. The Center for Gene and Cell Processing in Shiga Prefecture, as the core base of the business, performs contracted vector production for gene transduction and contracted cell processing based on GCTP/GMP. It also produces, conducts quality testing for, and stores RetroNectin®, which is used in gene therapies and other products developed by Takara Bio. The Annex of the Center for Gene and Cell Processing in Kanagawa began operations in April 2017. The center obtained "accreditation of foreign cell processor" from the Ministry of Health, Labour and Welfare in December 2017, allowing it to conduct specific processed cell manufacturing. Further expansion of CDMO business making efficient use of these two facilities is in the pipeline.

CDM Center

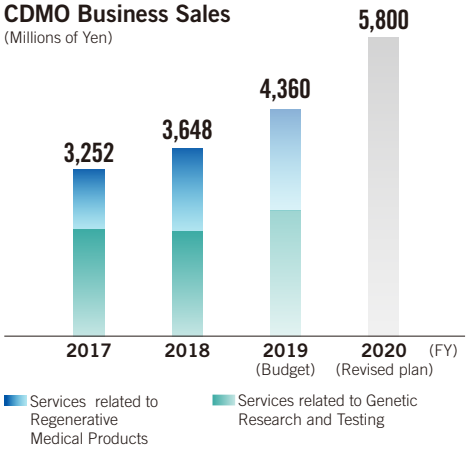
Genetic testing
- Genetic testing for regenerative medical products
- Whole human genome sequence analysis
- Comprehensive cancer gene analysis
- Gene expression analysis

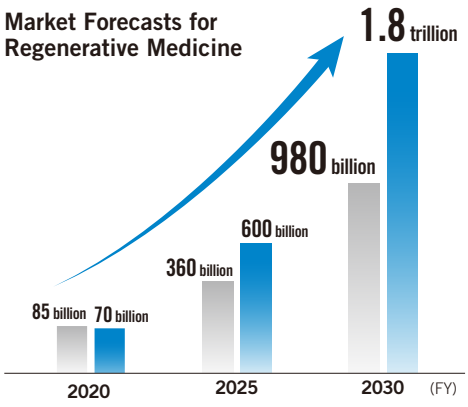
The Center for Gene and Cell Processing

Regenerative medical products
- Cell processing
- Vector production
- iPS cell production
- Cell banking

Advanced research support
- Next-generation sequencer and array analysis
- Single cell analysis and genome editing

Basic research support for genetic engineering and cell engineering
- Production and analysis of genes, antibodies, proteins, etc.



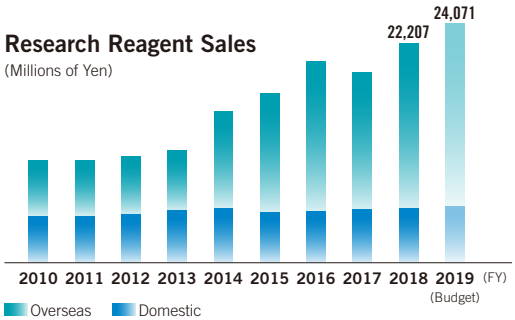


Source: "FIRM 2017 Regenerative Therapy Marketability Report" published in March, 2017 by the Forum for Innovative Regenerative Medicine

in WORLD

Business Strategy 2 Bringing to the global market research reagents essential for biotechnology research

At our research and development regions, located in Japan, the U.S., and China, Takara Bio researches and develops new products and services with different development aims that leverage the characteristics at each region. We are also focused on making our production supply system more efficient by strengthening and streamlining production frameworks at production facilities in Japan, China, and India while at the same time rebuilding our logistics framework. Taking advantage of the brand strength of TaKaRa® in Asia, of Clontech® in the U.S. and Europe, and of Cellartis® for stem cell-related products, we are working to strengthen our marketing structure at each facility in order to expand sales in the global market.



CG of the completed facilities.

A new research and manufacturing facility for regenerative medical products aimed at promoting gene therapy projects and expanding the CDMO business

The steady development of our gene therapy projects has necessitated scaled-up manufacturing in anticipation of market launch. In our CDMO business, the utilization rates of our facilities are increasing sharply against increasing order volume for our contracted services from pharmaceutical companies and bioventures.

In response to this situation, we have decided to construct new facilities in our headquarters region of Kusatsu, Shiga Prefecture, with the aim of further promoting future gene therapy projects, and expanding our CDMO business. With this expansion, we expect to achieve a manufacturing capacity of about 2.5 times our services performance in fiscal 2017.

Overview of Plans (as of June 2018)

Goals

- Expansion of manufacturing capacity for therapeutic products and investigational products
- Expansion of CDMO business
- Strengthening of R&D capabilities

Details

❶ New construction

- 4 floors above ground, 1 floor below ground, total area about 14,500m^2
  Ground area: 95m x 45m; height: 22m
- Enhancement of GCTP/GMP vector production, aseptic filling, and quality testing
- Enhancement of contracted service

❷ Existing facilities

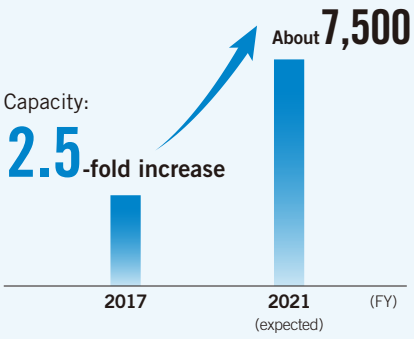
- Enhancement of GCTP/GMP cell processing and cell banking, and genetic analysis services using high-speed sequencers

Completion of construction

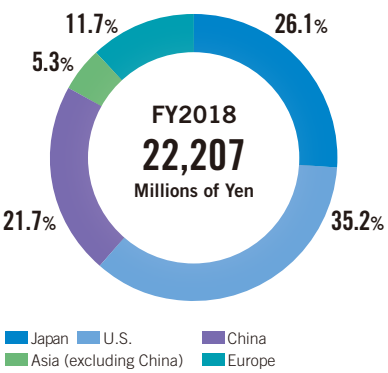
- Scheduled for operation in December 2019

Contracted Services Sales

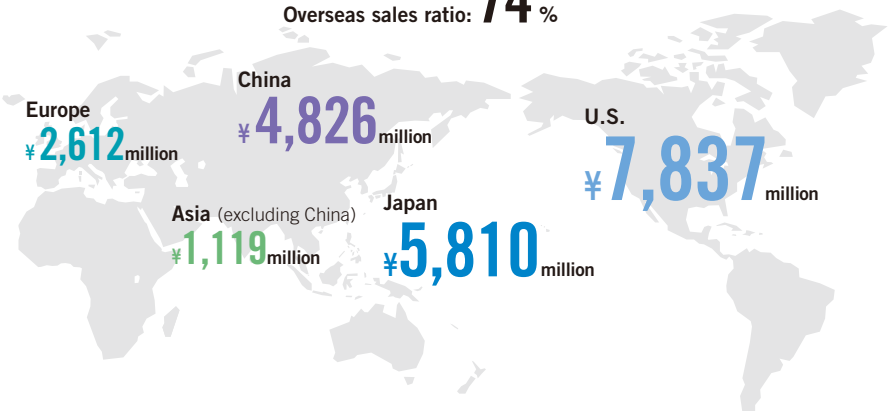
(Millions of Yen)



Sales by Geographic Segment

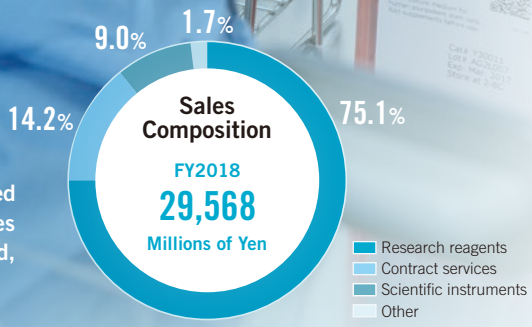


Overseas sales ratio: 74 %



Bioindustry Business

Takara Bio develops original research reagents, scientific instruments, and contracted services that utilize new genetic engineering and advanced cell biology technologies on a consistent basis, supporting a wide range of pursuits in the life sciences field, which includes basic research and drug discovery and development.



Research Reagents and Scientific Instruments

Since launch of the first domestically produced restriction enzymes in 1979, Takara Bio has provided research reagents and scientific instruments needed for life sciences research at universities and private companies. In 2005, Takara Bio acquired U.S.-based Clontech Laboratories, Inc. (now Takara Bio USA, Inc.), a company that excels in the field of molecular biology. We then acquired Europe-based Cellectis AB (now Takara Bio Europe AB), owner of technologies to induce differentiation of iPS and other stem cells, as well as products related to stem cells, in 2014. This has given the Takara Bio Group ownership of the TaKaRa®, Clontech®, and Cellartis® brands and a wide-ranging line-up of research reagent products. In 2017, we acquired WaferGen Bio-systems, which owns a single-cell analysis system (device), and Rubicon Genomics, which owns ultra-low input DNA analysis technology, allowing us to provide a wider range of products and services in the field of ultra-low input nucleic acid analysis, from basic research to industrial applications.

Product Line-up

Through our subsidiaries in the U.S., Europe, China, South Korea, and India, we are constructing a global sales structure for these research reagents and scientific instruments.

Clontech TaKaRa cellartis

Clontech®

Has a line-up of products that incorporate advanced technologies from fields such as molecular biology and cell biology.

(Main products)
- Products for next-generation sequencers
- Single cell analysis systems
- Gene expression research reagents and fluorescent proteins

TaKaRa®

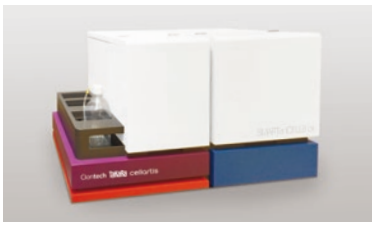
Offers a broad range of products spanning the entire spectrum of biotechnology research, including genetic engineering. Provides services that leverage expertise in the development of regenerative medical products, in addition to genetic analysis service.

(Main products and services)
- Genetic research reagents
- Genetic testing kits
- Genome analysis service
- Development and manufacturing service for regenerative medical products

Cellartis®

Offers iPS cell products and other products involving stem cell research.

(Main products)
- iPS cell research reagents
- Products related to stem cell culture and differentiation



SMARTer™ICELL8® cx

TOPICS

Launch of the single cell analysis system SMARTer™ICELL8® cx

In March 2018, we began sales of SMARTer™ICELL8® cx, a single cell analysis system. SMARTer™ICELL8® cx makes use of proprietary SmartChip™ technology to separate large volumes of single cells rapidly and effectively, and to selectively acquire living cells through image processing. Usable with a wide range of cell sizes and types, the technology is able to prevent the admixture of non-targeted cells in order to perform highly precise analysis. It allows a series of analyses to proceed smoothly, from acquisition of single cells to genetic analysis using next-generation sequencers.

Foundation of a clinical sequencing laboratory and joint research seminar with Osaka University, for the development of advanced genome medicine technology

In March 2018, we established a CAP-LAP-compliant* clinical sequencing laboratory within Osaka University Hospital. As a designated Core Hospital for Cancer Genomic Medicine recognized by the Ministry of Health, Labour and Welfare, the hospital is expected to undertake full-scale genome testing.

In April, Takara Bio founded an advanced genome medicine joint research seminar with the Graduate School of Medicine Faculty of Medicine, Osaka University. In addition to testing methods and technology development for next-generation gene therapy, we are working to train expert human resources in the genomic medicine field.

* A clinical testing laboratory accreditation program by the College of American Pathologists, and one of the global standards for quality control in clinical testing laboratories.

Contracted Services

Our CDMO (Contract Development and Manufacturing Organization) business provides high added-value contracted services as an R&D partner to our customers. We provide a seamless package of regenerative medicine development support services and genetic testing support services such as genetic analysis for genome sequence and regenerative medicine.

1. Contracted Services for Developing Regenerative Medicine Products

With the Center for Gene and Cell Processing as our central facility, Takara Bio conducts contracted services that include manufacturing and developing virus vectors and cells for gene transduction based on Good Gene, Cellular and Tissue-based Products Manufacturing Practices (GCTP) and Good Manufacturing Practices (GMP). Other contracted services include quality and safety testing and cell banking. Leveraging technologies and expertise developed through the clinical development of gene and cell therapies, we provide comprehensive support for the research, development, and industrial application of products in the regenerative medicine and cell therapy fields.

2. Contracted Gene Analysis Services

In addition to genetic testing support services such as human genome sequence analysis, comprehensive cancer gene analysis, and intestinal flora analysis, Takara Bio provides advanced genetic engineering research support services utilizing state-of-the-art technologies and equipment used in techniques such as next-generation sequencing and genome editing. We are also focused on bioinformatics (life information science), providing high added-value services such as next-generation data mining to draw out useful information from vast quantities of acquired data.

The LIC Annex of the Center for Gene and Cell Processing, one of the sites of our CDMO Business

External view (Life Innovation Center, Kawasaki, Kanagawa)

Interior

Future Initiatives

Takara Bio aims to build up its basic technology for next-generation gene therapy, while expanding its overseas business and strengthening its domestic business.

- Early integrate and maximize synergies from the acquisition of WaferGen Bio-systems and Rubicon Genomics
- Enhance our efficiency of R&D by establishing different development focuses that utilize the characteristics of our R&D bases in Japan, the U.S., and China
- Expand manufacturing capacity through facilities investment in the CDMO business, and improve structures for quality assurance and accuracy management
- Promote development of basic technology related to next-generation gene therapies
- Rapidly productize leading-edge technologies using the open innovation

Gene Therapy Business

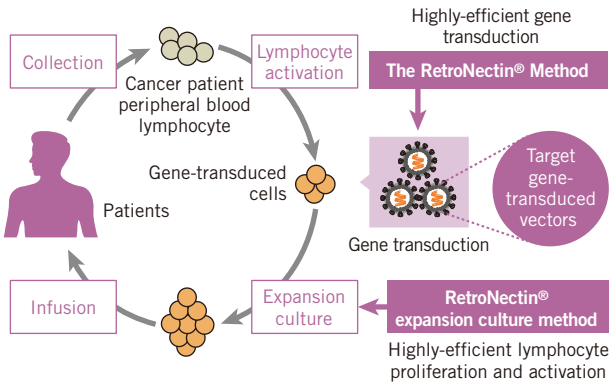
With the aim of early commercialization, Takara Bio advances the clinical development of gene therapies that target diseases such as cancer.

Our original technology: the RetroNectin® Method

In engineered T cell therapy, one type of gene therapy, a therapeutic gene is transduced into cells such as lymphocytes taken from a patient and infused back into the patient. With this therapy, the RetroNectin® method for highly-efficient gene transduction and the RetroNectin® expansion culture method for highly-efficient expansion culture of lymphocytes, developed by our company are used. These technologies have become the standard in gene therapy and have been licensed to many companies and organizations seeking to commercialize gene therapies. At present, we provide commercial use licenses for RetroNectin® to 11 companies.

Takara Bio will continue to provide RetroNectin® and promote the licensing out of technology to companies and organizations engaged in the clinical development of Engineered T Cell Therapy, and will work to expand sales.

RetroNectin® Method and RetroNectin® Expansion Culture Method



Gene Therapy

To address diseases including cancer, Takara Bio will continue advancing the development of gene therapies including the oncolytic virus Canerpaturev (C-REV), our original RetroNectin® method, a highly-efficient gene transduction technology, the RetroNectin® expansion culture method, a highly-efficient lymphocyte propagation technology; and the siTCR™ technology-based Engineered T Cell Therapy.

Oncolytic Virus

Canerpaturev (C-REV)

Canerpaturev (C-REV) is an attenuated strain of the herpes simplex virus 1 (HSV-1) that exhibits antitumor activity when inserted into a cancerous region. The administration of Canerpaturev (C-REV) also strengthens immunity to cancer cells, giving it promise as a means to prevent tumors from forming, even in tumor regions where Canerpaturev (C-REV) was not administered. This type of virus is called an oncolytic virus. Oncolytic viruses selectively replicate within tumorous tissue and break it down without doing excessive damage to normal tissue.

As an independent development project, we are currently conducting clinical trials targeting melanoma at the National Cancer Center Hospital and other facilities and are aiming for approval application in fiscal 2019. In the U.S., investigator initiated clinical trials targeting melanoma are underway at Huntsman Cancer Institute and other organizations. In Japan, we are engaged in clinical trials targeting pancreatic cancer. In December 2016, we entered into a joint development and exclusive sales agreement for Canerpaturev (C-REV) in Japan with Otsuka Pharmaceutical Co., Ltd., and will pursue ongoing clinical development of Canerpaturev (C-REV).

TOPICS

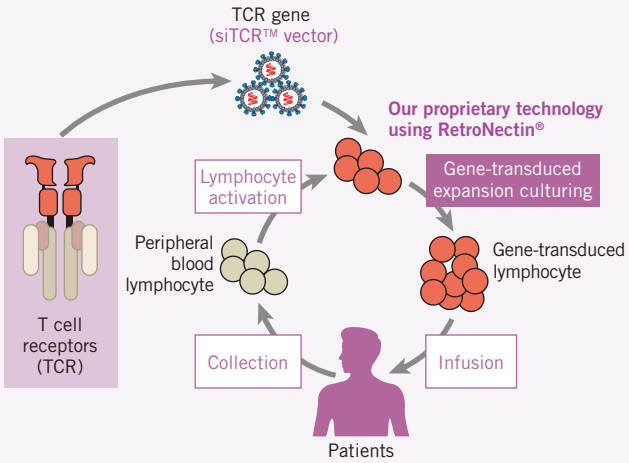
Our NY-ESO-1·siTCR™ gene therapy for synovial sarcoma has been recognized under the "SAKIGAKE Designation System" by the Japanese Ministry of Health, Labour and Welfare

NY-ESO-1·siTCR™ gene therapy, for which we are conducting clinical trials in Japan targeting synovial sarcoma, was recognized as a product under the "SAKIGAKE Designation System" by the Japanese Ministry of Health, Labour and Welfare in March 2018.

The "SAKIGAKE Designation System" is aimed at first-in-the-world provision of advanced therapeutic products through the rapid realization of new innovative products that satisfy certain criteria. Under the designation, NY-ESO-1·siTCR™ is able to benefit from prioritized clinical consultation on clinical trials, prior evaluation, review, etc. by the Japanese Pharmaceuticals and Medical Devices Agency (PMDA).

Our company has engaged in Phase I/II clinical trials targeting synovial sarcoma in Japan since January 2017. We will continue to pursue early commercialization, making maximally effective use of the merits of the designation.

Mechanism of Cancer Treatment with NY-ESO-1·siTCR™



Engineered T Cell Therapy

1. siTCR™ Gene Therapy

TCR (T cell receptor) gene therapies involve taking autologous lymphocytes from a patient, transducing TCR genes capable of recognizing cancer antigens into the lymphocytes, multiplying the lymphocytes, and introducing the lymphocytes back into the patient. The therapy makes use of the advantage of the gene transduction into lymphocytes, which identify, attack, and eliminate cancer cells. We are developing siTCR™ gene therapy that involves the use of our proprietary siTCR™ vector technology, which is thought to reduce the risk of side effects and lead to improved efficacy.

In clinical development, we are engaged in Phase I/II clinical trials of NY-ESO-1·siTCR™ gene therapy targeting synovial sarcoma in Japan. In April 2018, we concluded a joint development and exclusive sales agreement in Japan with Otsuka Pharmaceutical Co., Ltd. Together, we are undertaking development aimed at obtaining early manufacturing and sales approval for pharmaceuticals.

2. CAR Gene Therapy

Chimeric Antigen Receptors (CARs) are receptors that are made by artificially combining parts derived from antibodies that specifically recognize certain cancer antigens with parts with cytotoxic functions derived from T-cell receptors. CAR gene therapies involve putting autologous lymphocytes transduced with CAR genes back into the patient, allowing these lymphocytes to identify and attack cancer cells, thereby eliminating them.

In Japan, we are conducting clinical trials of CD19·CAR gene therapy targeting adult acute lymphoblastic leukemia. As in the NY-ESO-1·siTCR™ gene therapy project, we are addressing unmet medical needs in collaboration with our partner Otsuka Pharmaceutical Co., Ltd.

Future Initiatives

- Approval application for Japan's first gene therapy product for cancer, Canerpaturev (C-REV), in fiscal 2019
- Improve a post-launch Pharmaceutical Affairs structure and product supply structure
- Complete domestic joint projects, including Canerpaturev (C-REV), NY-ESO-1·siTCR™, and CD19·CAR
- New partnerships for overseas development


Peucedanum japonicum


Gelidium


Mushroom (*Hypsizigus marmoreus*)

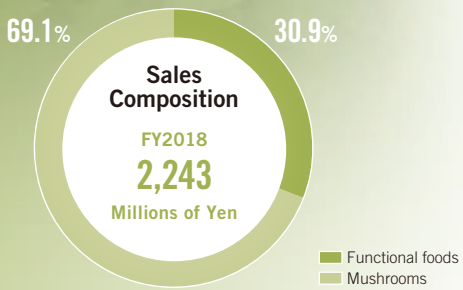

Gagome kombu (kelp)


Dioscorea esculenta (yam)


Ashitaba

AgriBio Business

Takara Bio is engaging in the development and manufacture of functional foods utilizing biotechnology and is developing a mushroom business involving the mass culture.



Functional Food Business

Takara Bio conducts research into the functionality of food ingredients that leverage the original advanced biotechnology of our group. We engage in business focused on the development of Gagome kombu (kelp) fucoidan products, *Peucedanum japonicum*-derived isosamidin products, *Dioscorea esculenta*-derived Yamsgenin products, and mushroom products.

Mushroom Business

In 1973, Takara Bio established, for the first time in the world, a technique for mass-producing Bunashimeji mushrooms and with its commercialization began the Company's business of mushrooms. We have since developed new high value-added mushrooms and have also established mass production techniques.

Currently, Takara Bio produces Honshimeji mushrooms (product name: "Daikoku Honshimeji") and Hatakeshimeji mushrooms (product name: "Otsubu Tanbashimeji") through Mizuho Norin Co., Ltd. (located in Kyotamba, Kyoto Prefecture). Takara Bio holds the top share of the market in Japan for Honshimeji mushrooms, known for their good taste which rivals the smell of matsutake — "Matsutake for flavor, Shimeji for taste" as the saying goes. Daikoku Honshimeji received "Kyoto Brand Goods" designation from the Kyo-Branded Products Association in 2015, and has earned a solid reputation as a high value-added mushroom product.

Furthermore, in December 2017, Mizuho Norin received ASIAGAP* certification, a production process management standard for agricultural products. Through the certification, we aim to have Daikoku Honshimeji and Otsubu Tanbashimeji accepted as food ingredients for the Tokyo Olympic and Paralympic Games in 2020, as we work to continue improving quality in the mushroom business to provide safe mushrooms that consumers can trust.

* One of the Good Agricultural Practices (GAPs) for which the Japan GAP Foundation oversees the review and certification system.


Kyotamba Daikoku Honshimeji (Honshimeji)


Otsubu Tanbashimeji (Hatakeshimeji)

Future Initiatives

Improving our systems to drive sustainable growth in the Functional Food Business and Mushroom Business.

Functional Food Business

- Construct a stable product supply aligned with the sales plan of Takara Healthcare Inc.

Mushroom Business

- Efficiently expand business by transitioning to a structure that unifies manufacturing and sales (consolidation into Mizuho Norin Co., Ltd. and KINOKO CENTER KIN INC.)
- Construct brand strategy aligned with the markets for individual mushroom products

Contribution to Society

In line with our corporate philosophy of "Contributing to the health of humankind through the development of revolutionary biotechnologies such as gene therapy," Takara Bio is advancing the development of gene therapies driven by our proprietary technologies, aimed at patients of rare diseases and serious diseases such as cancer for which treatment methods are yet insufficient.

In addition, we make day-to-day efforts to contribute to society by providing researchers worldwide with the research reagents and kits that are essential to leading-edge biotechnology research.

Quality Control

Takara Bio, Takara Biotechnology (Dalian) Co., Ltd., and DSS Takara Bio India Private Limited, which manufacture research reagents, have acquired certification for ISO 9001, the international standard for quality management systems. In addition, our development and sales site Takara Bio USA, Inc. and our sales site Takara Bio Europe S.A.S. have each acquired ISO certification and engage in strict quality control. Takara Bio Europe AB also plans to acquire ISO 9001 certification.

ISO Certification Status

Certified organization	Region	Applicable standard
Takara Bio Inc.	Japan	JIS Q 9001: 2015 (ISO 9001: 2015)
Takara Bio USA, Inc.	U.S.	ISO 13485: 2003 (transition from 2003 version to 2016 version scheduled)
Takara Bio Europe S.A.S.	Europe	ISO 9001: 2015
Takara Biotechnology (Dalian) Co., Ltd.	China	ISO 9001: 2015
DSS Takara Bio India Private Limited	India	ISO 9001: 2015

The Center for Gene and Cell Processing (Kusatsu, Shiga Prefecture) and its LIC Annex (Kawasaki, Kanagawa Prefecture) provide support for the development and manufacturing of regenerative medical products. These organizations are constructing quality control systems based on GCTP/GMP, and have acquired approval to conduct specific processed cell manufacturing.

In addition, the CDM Center, which provides genetic analysis services and genetic testing support, performs accuracy management through CAP/LAP certification and is registered as a clinical testing laboratory.

Compliance with Regulations on Living Modified Organisms

Takara Bio strives to comply with laws and ordinances including the Act on the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms ("the Cartagena Law"). The company strives to ensure biodiversity as well as safety and health with the establishment of the Genetic Modification Safety Regulations and thorough scrutiny by the Genetic Modification Committee, which has been set up in-house.

In the sales of research reagents covered by the Cartagena Law, we call on users to comply with laws and ordinances. As necessary, we confirm that users undergo ministerial confirmation of measures to prevent the dispersion of living modified organisms.

Implementation of Animal Testing with Consideration of Animal Welfare

Takara Bio has formulated internal Guidelines on Animal Testing and the Regulations for Implementation of Animal Testing in line with laws, ordinances, and guidelines established by relevant organizations, and makes efforts to engage in strict and fair animal testing.

Our animal testing facilities have been recognized for their performance of proper animal testing with scientific perspective, under voluntary control efforts and with consideration of animal welfare. The facilities have been accredited by the Japan Health Sciences Foundation's Center for Accreditation of Laboratory Animal Care and Use.

Environmental Conservation Measures

Amid rising concern over the global environment and the health and safety of local communities, Takara Bio recognizes environmental conservation initiatives as an important issue. We are working on energy conservation, resource conservation, and business activities, such as carbon reduction, that are aimed at reducing environmental impacts.

We have made use of structural design incorporating new construction methods with high environmental performance in key facilities, including our main building that combines headquarters functions and research functions, and its adjacent Center for Gene and Cell Processing. Furthermore, we have installed long-lasting, low-energy LED illumination inside buildings and automatic detection systems with motion sensors in hallways, stairways and restrooms, and otherwise give consideration to working environments in order to ensure the safety and health of people.

In fiscal 2018, our emissions of CO_2 totaled 6,049 tons*1, and of disposed waste totaled 98 tons, and our water usage totaled 27,180m^3 in Japan. Based on these numbers, we will work on environmental issues with risk factors such as greenhouse gas and waste emissions in compliance with environmental laws and regulations, as well as water conservation of nearby Lake Biwa*2. Furthermore, we will make efforts to enhance environmental management throughout the group in Japan and overseas, and to globally achieve environmental conservation and coexistence with nature.

*1 Calculated from fuel and electric power emission factors from gas and electric power utilities, etc.

*2 Lake Biwa is the largest lake in Japan and, is close to headquarters of Takara Bio.

Fundamental Views on Corporate Governance

Guided by its corporate philosophy of "Contributing to the health of humankind through the development of revolutionary biotechnologies such as gene therapy," Takara Bio leverages biotechnology, its fundamental technology, to engage in three businesses: Bioindustry Business, AgriBio Business and Gene Therapy Business. Takara Bio will contribute to society by creating new value through advances in these three business areas and by continuing to grow sustainably.

Takara Bio believes it is necessary to retain earnings in order to proactively implement R&D in each field. Takara Bio is presently at the stage where we are making prior investments in R&D. The current three-year Takara Bio's Medium-Term Management Plan FY2020, which will be in its final fiscal year in 2020, is a policy which aims to strengthen Takara Bio's three core business segments and the business base which supports these efforts, in order to enhance Takara Bio's standing as a global industrial company for regenerative medical products. The management plan also aims to achieve prodigious growth and therefore Takara Bio considers operating income to be the most important factor in determining the current state of business. On the other hand, Takara Bio has placed appropriate shareholder return with awareness of capital efficiency as an important issue for management, and is implementing a basic policy of redistributing profits while taking full consideration of business results and financial conditions.

In this way and based on its corporate philosophy, in order to achieve sustainable growth and enhance corporate value over the medium-to-long term, Takara Bio recognizes that it should endeavor to cooperate with various stakeholders, including shareholders, employees, customers, creditors, and local communities in an appropriate manner and while recognizing that a corporate governance structure which promotes honesty and fairness throughout all its corporate activities at all times is essential, Takara Bio is working towards establishing specific policies one by one.

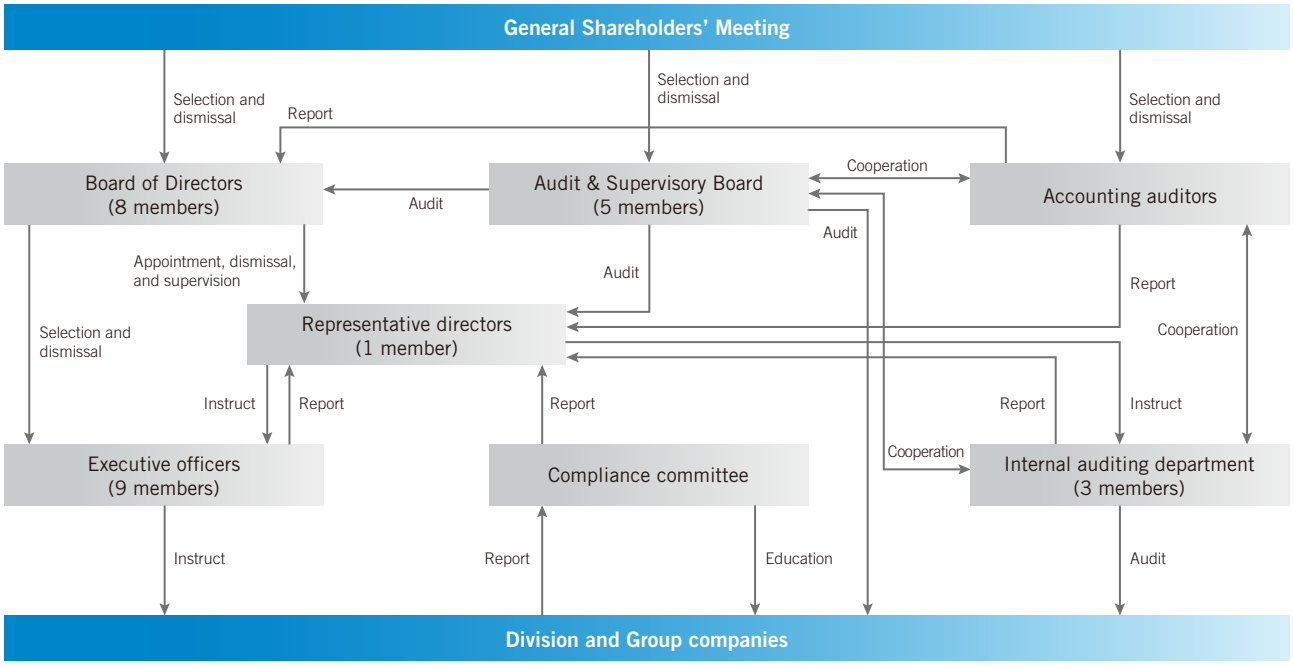
Corporate Governance Structure

The Board of Directors consists of eight members (including two external directors) who meet whenever necessary in addition to a regular monthly Board meeting. The Board makes decisions on important issues concerning the management of Takara Bio, its management policies, and legal matters, as well as overseeing the execution of Board member affairs. Two external directors and three external Audit & Supervisory Board members have been designated as independent directors in accordance with the rules stipulated by the Tokyo Stock Exchange (TSE), and the TSE has been notified of these designations.

Takara Bio has adopted an Audit & Supervisory Board (ASB) system, and three of our five ASB members are external. We have established an internal auditing department comprising three personnel. We endeavor to enhance internal control through a system in which the ASB members conduct audits while coordinating with the internal auditing department.

Our parent company is Takara Holdings Inc., which owns 60.92% of the voting rights as of the end of March 2018. Takara Holdings' policy in managing its group companies is to seek to maximize the corporate value of the whole Takara Group while enabling each and every member corporation of the Takara Group to maintain its uniqueness and independence. Since our biotechnology business requires highly advanced expertise and quick decision making, we are especially unique and independent in the Takara Group. While we report the decisions made at our Board meetings and other issues to the parent company, no prior approval is required in order to execute our decisions.

Diagram of Corporate Governance Structure



Executives As of June 22, 2018

Board of Directors

Hisashi Ohmiya
Chairman, Director

Apr. 1968	Joins Takara Shuzo Co., Ltd.
May 1974	Director, Takara Shuzo Co., Ltd.
Jun. 1982	Managing Director, Takara Shuzo Co., Ltd.
Jun. 1988	Senior Managing Director, Takara Shuzo Co., Ltd.
Jun. 1991	Vice President, Takara Shuzo Co., Ltd.
Jun. 1993	President, Takara Shuzo Co., Ltd.
Apr. 2002	Chairman (incumbent) President, Takara Shuzo Co., Ltd.
Jun. 2012	Chairman, Takara Holdings Inc. (incumbent) Chairman, Takara Shuzo Co., Ltd. (incumbent)

Koichi Nakao
President, Chairman & President of Subsidiaries, Representative Director

Apr. 1985	Joins Takara Shuzo Co., Ltd.
Apr. 2002	Director
Jun. 2003	Managing Director & Executive Officer
Jun. 2004	Senior Managing Director & Executive Officer
Apr. 2006	Senior Managing Director & Executive Officer, COO
Jun. 2007	Vice President & Executive Officer, COO
Jun. 2008	Vice President, COO
May 2009	President (incumbent) President, Takara Bio USA Holdings Inc. (incumbent)
Jun. 2009	Director, Takara Holdings Inc. (incumbent)
Jun. 2015	Chairman & President of Subsidiaries, Representative Director (incumbent)

Shuichiro Matsuzaki
Executive Vice President, Senior Executive Vice President

Apr. 1980	Joins Takara Shuzo Co., Ltd.
Jun. 2005	Director, Takara Holdings Inc.
Jun. 2007	Director, Takara Shuzo Co., Ltd.
Jun. 2008	Managing Director, Takara Shuzo Co., Ltd.
Jun. 2010	Senior Managing Director, Takara Shuzo Co., Ltd.
Jun. 2014	Senior Managing Director
Jun. 2015	Senior Corporate Executive Officer
Jun. 2017	Executive Vice President (incumbent)

Junichi Mineno
Managing Director & Senior Executive Officer

Apr. 1984	Joins Takara Shuzo Co., Ltd.
Apr. 2011	Executive Officer
Jun. 2012	Senior Executive Officer
Jun. 2014	Managing Director (incumbent)
Jun. 2015	Senior Executive Officer (incumbent)

Masanobu Kimura
Director & Senior Executive Officer

May 2013	Joins Takara Bio Co., Ltd.
Jun. 2016	Executive Officer
Jun. 2017	Director (incumbent), Senior Executive Officer (incumbent)

Tsuyoshi Miyamura
Director & Senior Executive Officer

Apr. 1988	Joins Takara Shuzo Co., Ltd.
Jun. 2009	Executive Officer
Jun. 2014	Senior Executive Officer (incumbent)
Jun. 2018	Director (incumbent)

Jawaharlal Bhatt
Director (External Director)

Apr. 1985	Director, Cooper Laser Sonics, Inc.
Jun. 1990	President & CEO, Bio NovaTek International, Inc.
May 2000	President & CEO, Jay Bhatt, Inc.
Jun. 2010	Director (incumbent)

Nobuko Kawashima
Director (External Director)

Apr. 1986	Joined The Long-Term Credit Bank of Japan
Sep. 1987	Joined Dentsu Communication Institute Inc.
Sep. 1991	Research fellow at the Centre for Cultural Policy Studies of the University of Warwick
Apr. 1999	Full-time lecturer with the Faculty of Economics at Doshisha University
Apr. 2004	Professor with the Faculty of Economics at Doshisha University (incumbent)
Jun. 2016	Director (incumbent)

Audit & Supervisory Board Members

Akihiko Kita
Standing Audit & Supervisory Board Member

Apr. 1984	Joins Takara Shuzo Co., Ltd.
Apr. 2014	Executive Officer
Jun. 2016	Standing Audit & Supervisory Board Member (incumbent)

Kiyozo Asada
Standing Audit & Supervisory Board Member

Apr. 1987	Joins Takara Shuzo Co., Ltd.
Jun. 2000	Director, Takara Shuzo Co., Ltd.
Apr. 2002	Director
Jun. 2003	Managing Director & Executive Officer
Jun. 2004	Senior Managing Director & Executive Officer
Jun. 2011	Standing Audit & Supervisory Board Member (incumbent)

Kunihiko Kamata
External Audit & Supervisory Board Member

Apr. 1992	Registered as an attorney at law (Osaka Bar Association)
Mar. 1993	Registered as a patent attorney
Apr. 2007	Part-time lecturer at Meijo University (incumbent)
Jan. 2011	Daiichi Law Office, P.C. (incumbent)
Jun. 2016	Audit & Supervisory Board Member (incumbent)

Yasuo Himeiwa
External Audit & Supervisory Board Member

Aug. 1983	Joined the accounting firm of Peat Marwick Mitchell & Co. (currently KPMG)
Aug. 1990	Registered as a Certified Public Accountant of Japan
Aug. 1994	European Director at KPMG Project Japan
Jan. 1996	Century Audit Corporation (currently Ernst & Young ShinNihon LLC)
Feb. 2001	Senior partner at Ernst & Young ShinNihon LLC
Sep. 2003	Partner at KPMG AZSA LLC
Jul. 2009	Director, AZSA LLC Osaka GJP (Global Japanese Practice)
May 2015	KPMG AZSA LLC National Employee Association Chairman
Jun. 2016	Director, Himeiwa Accounting Office (incumbent) Audit & Supervisory Board Member(incumbent)
Jun. 2017	Outside Director (Member of Audit & Supervisory Committee), Sharp Corporation (incumbent)

Masaaki Makikawa
External Audit & Supervisory Board Member

Apr. 1996	Professor with the Department of Robotics, Faculty of Science and Engineering, Ritsumeikan University
Apr. 2003	Head of the Liaison Office, Biwako-Kusatsu Campus, Ritsumeikan University
Apr. 2005	Head of the Research Center for Sport and Health Science, Ritsumeikan University
Apr. 2007	Executive Director of the Institute of Science and Technology, Ritsumeikan University
Apr. 2011	Visiting Professor with the Graduate School of Medicine, Osaka University (incumbent)
Apr. 2012	Dean of the Research Division, Ritsumeikan University
Apr. 2017	Specially Appointed Professor with the Faculty of Science and Engineering, Ritsumeikan University (incumbent)
Jun. 2017	Audit & Supervisory Board Member (incumbent)

Executive Officers

Yoh Hamaoka
Senior Executive Officer

Masaharu Watabe
Senior Executive Officer

Masahide Tamaki
Senior Executive Officer

Kazuki Yamamoto
Senior Executive Officer

Mutsumi Sano
Executive Officer

Katsuhiko Kusakabe
Executive Officer

Akira Kodera
Executive Officer

Noritake Nishiwaki
Executive Officer

Masanari Kitagawa
Executive Officer

Frequently Asked Questions concerning IR

Q1 **What are the company's policies concerning returns to shareholders, including dividends and shareholder special benefit plan?**

A1 Considering the management performance and financial statement comprehensively, Takara Bio recognizes a basic policy aimed for profit contribution, positioning an important business management issue to distribute profits to shareholders as well as enhancing the internal reserves to strengthen the R&D activities of three business segments: Bioindustry, Gene Therapy, and AgriBio businesses. Specifically, Takara Bio pays the dividends payout ratio of 20% of estimated net income calculated without taking into account extraordinary profit and loss stated on the consolidated financial statements.

At present, our policy on returns to shareholders prioritizes dividends. Regarding shareholder special benefit plan and similar policies, we continue to consider these items, taking business results, financial conditions, and other circumstances into account.

Q2 **How does the company view management metrics and stock price metrics?**

A2 We believe that there are many points of debate concerning stock and management metrics.

We recognize our current stage as that of prioritizing investments in R&D. Even taking the importance of capital efficiency into account, for the time being, we are aiming for sustainable growth in profits while absorbing increases in R&D expenses. Under these circumstances, we position operating income as the most important management metric.

Stock metrics and management metrics such as PER and ROE are trending upward, if at a measured pace. We believe that it will take time to achieve the average level of company listed on the first section of the Tokyo Stock Exchange, and will bolster our efforts toward improvement.

Q3 **How can development progress in the Gene Therapy Business be checked?**

A3 An overview of the Gene Therapy Business and the status of clinical development can be checked under "Gene Therapy Business" on the website.

Please also refer to the information that is released at the time of financial results briefings, individual investor briefings, etc. Materials from briefings are collected under "IR Library" on the company website.

- Gene Therapy Business
  http://www.takara-bio.co.jp/medi/index.html
- IR Library
  http://ir.takara-bio.co.jp/ja/library.html

Five-Year Financial Summary

(Millions of Yen) For the Years Ended March 31:	2014	2015	2016	2017	2018
Net sales	23,905	25,969	29,729	29,375	**32,312**
Cost of sales	11,331	12,142	13,405	12,422	**13,657**
Selling, general and administrative expenses	10,619	11,524	13,655	13,749	**15,099**
Operating income	1,954	2,302	2,667	3,202	**3,555**
Income before income taxes and minority interests	2,185	2,481	2,905	2,805	**3,361**
Income attributable to owners of parent	1,470	963	1,334	1,352	**2,335**
Depreciation	1,157	1,347	1,687	1,722	**2,568**
Capital expenditures	5,538	4,762	2,090	1,648	**1,539**
R&D expenses	3,026	3,401	4,275	4,101	**4,653**
As of March 31:					
Total assets	62,500	66,425	66,591	67,143	**68,854**
Total equity	57,127	59,642	60,110	59,985	**61,959**
Per Share of Common Stock (Yen):					
Basic net income	12.50	8.01	11.08	11.24	**19.39**
Equity	473.93	494.46	498.34	497.32	**513.66**
Ratios (%):					
Return on assets (ROA)	2.7	1.5	2.0	2.0	**3.4**
Return on equity (ROE)	3.0	1.7	2.2	2.3	**3.8**
Equity ratio	91.3	89.6	90.1	89.2	**89.8**

Note: Figures have been rounded down to the nearest million yen.

Net Sales

Capitalizing on biotechnologies developed over many years, the Takara Bio Group ("the Group") has focused its management resources on three business segments: Bioindustry, AgriBio, and Gene Therapy. For fiscal 2018, ended March 31, 2018, net sales increased by 10%, year-over-year to ¥32,312 million, on contributions from newly consolidated subsidiaries and from sales for contracted services greatly exceeding those of the same period of the previous fiscal year.

Income

Cost of sales in fiscal 2018 increased by 9.9%, year-over-year, to ¥13,657 million due to increases in net sales for each product and other factors. Consequently, gross profit increased by 10.0%, year-over-year, to ¥18,655 million. Selling, general and administrative (SG&A) expenses increased by 9.8%, year-over-year, to ¥15,099 million due to the increase in personnel expenses and amortization of goodwill of newly consolidated subsidiaries. However, operating income increased by 11.0%, year-over-year, to ¥3,555 million.

Other income (expenses) decreased by ¥202 million year-over-year due to a decrease in impairment loss for non-current assets and other factors.

This resulted in income before income taxes and minority interests increasing by 19.8% to ¥3,361 million. Also, net income attributable to owners of the parent increased 72.6%, year-over-year to ¥2,335 million due to a decrease in deferred income tax accompanying inclusion of deferred tax assets.

Segment Review

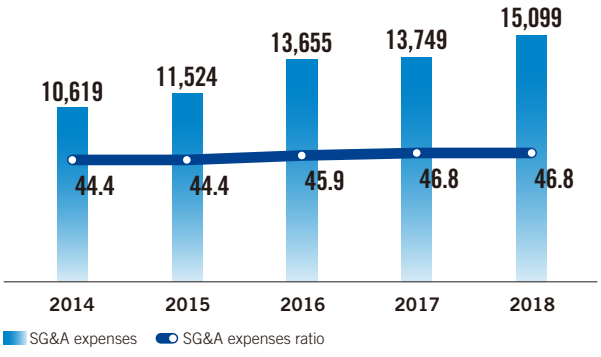
Bioindustry Business

Given the ever-widening activities of biotechnology R&D, from basic research to the medical field, the Group has positioned the Bioindustry Business as its core business, which mainly develops products and contracted services supporting such R&D activities.

In fiscal 2018, although net sales of scientific instruments decreased year-over-year, net sales of research reagents and contract research service increased year-over-year.

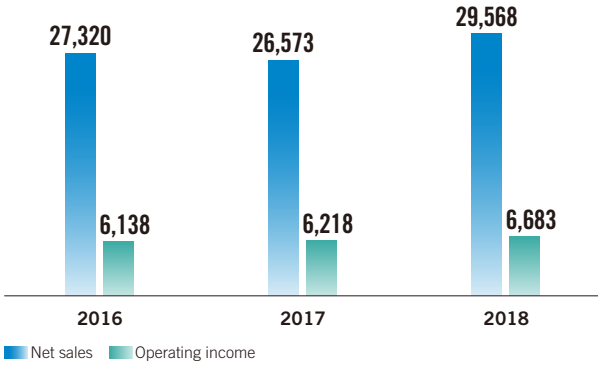
As a result, the business segment recorded a year-over-year increase of 11.3% in net sales to external customers, to ¥29,568 million and total income from net sales increased by 10.7% to ¥17,553 million. Although selling, general and administrative (SG&A) expenses increased by 12.7% to ¥10,870 million due to the above-mentioned increase in personnel expenses and amortization of goodwill of newly consolidated subsidiaries, operating income increased 7.5% year-over-year to ¥6,683 million.

SG&A Expenses / SG&A Expenses Ratio (Millions of Yen / %)



Bioindustry

Net Sales / Operating Income (Millions of Yen)



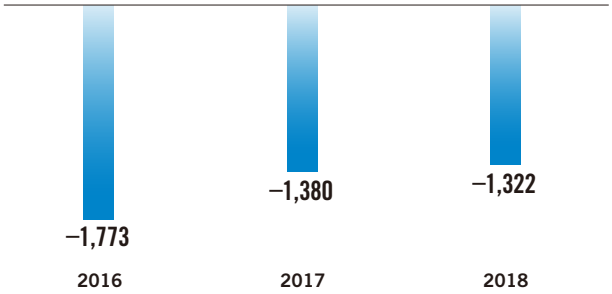
Gene Therapy Business

The business focuses on advancing development of gene therapy methods for cancer and other diseases such as genetically engineered T cell therapies. These therapies utilize the oncolytic virus C-REV, and original Takara Bio technologies such as the RetroNectin® method, a highiy-efficiency gene transduction method; RetroNectin® expansion-culture system, a highly-efficient lymphocyte propagation technology, and siTCR™ technology.

For fiscal 2018, ¥500 million in licensing fees for development and exclusive sales related to the oncolytic virus C-REV was received.

As a result, net sales to external customers for this business were ¥500 million (level with the previous fiscal year), and gross profit was also ¥500 million, level with the previous fiscal year. SG&A expenses decreased 3.0% year-over-year to ¥1,822 million primarily due to a decrease in R&D expenses. The Gene Therapy Business recorded an operating loss of ¥1,322 million (operating loss of ¥1,380 million in the previous fiscal year).

Gene Therapy
Operating Loss (Millions of Yen)



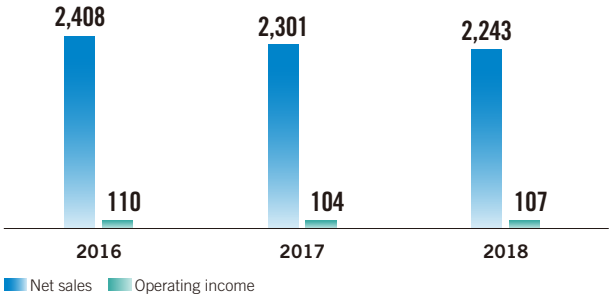
AgriBio Business

In the AgriBio Business, the Group uses the Group's unique leading-edge biotechnology to develop, produce, and market functional food ingredients. Business development is centered on products related to Gagome kombu (kelp) -derived "Fucoidan," agar-derived agaro-oligosaccharid, Ashitaba (angelica herb) -derived "Chalcone," Botanbofu (*Peucedanum japonicum*) -derived "Isosamidin," yam-derived "Yamsgenin," and mushroom products.

In fiscal 2018, net sales of mushroom-related products increased year-over-year, but net sales of functional food-related products declined year-over-year.

As a result, net sales to external customers for this business decreased 2.5% year-over-year to ¥2,243 million. However, gross profit increased 1.4% year-over-year to ¥601 million because the cost rate fell due to the change in sales composition for each product and other factors. SG&A expenses increased 1.1% year-over-year to ¥494 million. However, operating income rose above that of the previous fiscal year, increasing 2.7% year-over-year to ¥107 million.

AgriBio
Net Sales / Operating Income (Millions of Yen)



Financial Condition

Total assets as of the end of the fiscal year ended March 31, 2018 on a consolidated basis were ¥68,854 million, a year-over-year increase of ¥1,710 million. This owed mainly to an increase of ¥1,608 million in time deposits, an increase of ¥7,046 million in Goodwill, and ¥4,670 in technology assets, even though cash and cash equivalents decreased ¥12,149 million.

Total liabilities as of the fiscal year-end were ¥6,894 million, a year-over-year decrease of ¥263 million. This was primarily due to a ¥153 million decrease in notes and accounts payable-construction and other, and a ¥81 million decrease in accrued expenses.

Total net assets as of the fiscal year-end were ¥61,959 million, a year-over-year increase of ¥1,973 million. This owed mainly to a ¥1,853 million increase in retained earnings.

Cash Flows

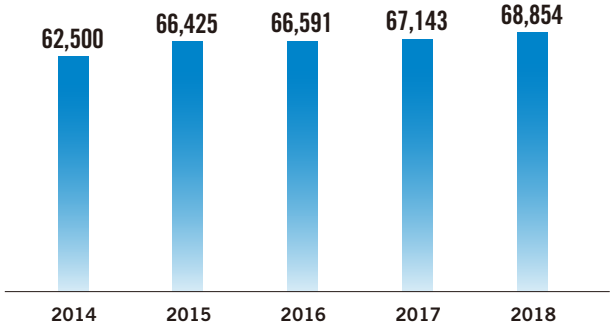
Net cash provided by operating activities was ¥3,935 million, an increase of ¥351 million compared with the previous fiscal year. This resulted primarily from an increase of ¥555 million in income before income taxes.

Net cash provided by investing activities was ¥14,755 million, a transition from revenue in the previous fiscal year to expenditure and up ¥28,249 million compared with the previous fiscal year. This was primarily due to investments in subsidiaries of ¥12,396 million resulting in a change in the scope of consolidation, and a decrease of ¥10,679 in proceeds from sales of marketable securities.

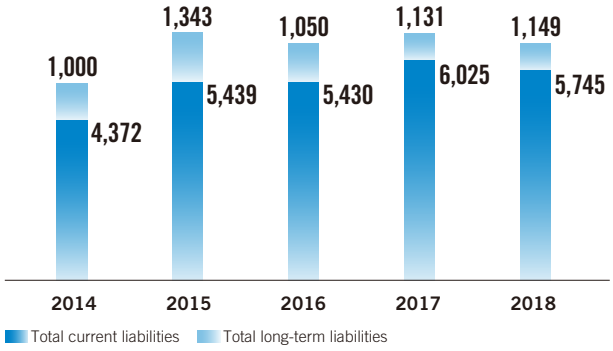
Net cash used in financing activities was ¥1,205 million, a ¥925 million increase compared with the previous fiscal year. This was primarily because of a ¥547 million from the redemption of bonds and a ¥264 million increase in cash dividends paid.

As a result, the balance of cash and cash equivalents at the end of the consolidated fiscal year was ¥10,051 million, a year-over-year decrease of ¥12,149 million.

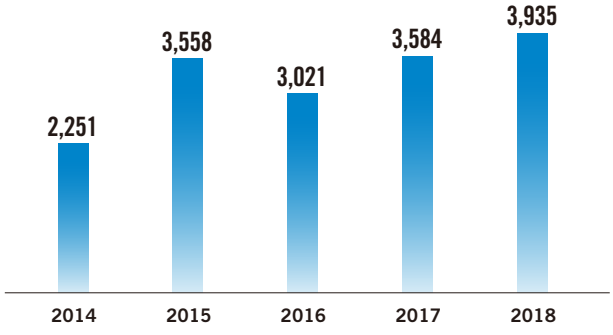
Total Assets (Millions of Yen)



Total Liabilities (Millions of Yen)



Net Cash Provided by Operating Activities (Millions of Yen)



Cash Flows from Business Activities

(Millions of Yen)	2014	2015	2016	2017	2018
Net cash provided by operating activities	¥ 2,251	¥ 3,558	¥ 3,021	¥ 3,584	**¥ 3,935**
Net cash provided by (used in) investing activities	(14,480)	(3,168)	(4,177)	13,493	**(14,755)**
Net cash provided by (used in) financial activities	11,281	(231)	(221)	(280)	**(1,205)**

Business Risks

The following are the major potential risks to which the Group may be exposed to in its business and other activities. In addition, from the standpoint of the positive disclosure of information significant to investor decisions, conditions that may not become risks, are also described below. Upon identifying the possibility of such risks, the Group will make the utmost effort to avoid them and will take countermeasures against them. There is, however, no guarantee that we can avoid all risks. Please note that the following descriptions do not cover all of the risk factors concerning the Group.

Unless specifically noted otherwise, all the statements in this section are as of the end of fiscal 2018, ended March 31, 2018, and any other statements with respect to future events are based on the Group's assumptions as of June 28, 2018, the submission date of the annual securities report.

In addition, the explanations of terminology are for investors to use as a reference to understand the information provided in this section. As such, they are based on our judgment and understanding.

1. R&D

Biotechnology-related industries cover a wide range that includes medical fields such as gene therapy and cellular therapy; the research support field, which has the research departments of universities, public research institutions, and companies engaged in basic research and drug development as its direct target market; the environment and energy fields; the information field known as bioinformatics; and the food fields, including agribio and functional foods.

Under these circumstances, the Group conducts extensive R&D, which it considers important in maintaining its competitive edge. In fact, the Group's R&D expenses for fiscal 2018 were ¥4,653 million, or 14.4% of net sales, which is extremely high. At the same time, there is no guarantee that R&D will proceed as planned, and, as clinical development in the Group's Gene Therapy business requires a particularly long period before commercialization, there is no guarantee that R&D will yield adequate results in a timely manner. Therefore, a delay in R&D could affect the Group's business strategy and performance. In addition, there is no guarantee that the R&D currently under way will produce the anticipated results. As a result, the Group could fail to meet its revenue projections.

2. Dependence on manufacturing

Calculated on a sales price base for fiscal 2018, Takara Biotechnology (Dalian), a Chinese subsidiary, accounted for nearly all of the research reagent production, a core Takara Bio Group product that generated 68.7% of the Group's net sales. The consolidation of production bases enables the Group to manufacture highly cost-competitive products, and the diversification of manufacturing sites is considered to be inexpedient, given the Group's production scale. As a result, changes in earnings trends at the subsidiary or an interruption to its business activities for any reason could adversely affect the Group's business strategy and performance.

3. Long-term prepaid expenses

Due to the nature of the Group's business activities, execution of license agreements relating to patents owned by others is a key strategy. In such license agreements, the Group may make an initial payment. These expenditures are allocated to assets as long-term prepaid expenses at the time of the expenditure and are processed regularly as expenses in each fiscal year, based on the time periods of the agreements, and other factors. In addition, the Group makes an assessment for the licensed technologies in each settlement period, taking into account use of the technology within the Group and obsolescence due to advances in biotechnology. When the asset component of a technology is in doubt, the Group treats the relevant long-term prepaid expense as a one-off expense.

Consequently, long-term prepaid expenses may increase in the future depending on the conclusion of license agreements. A high level of expense may also arise depending on the status of use of technologies within the Group and advances in biotechnology. This could affect the Group's performance.

4. Competition

The Group holds a unique position in the industry with a stable revenue base, a solid presence in the Asian market, and an extensive line-up of proprietary technology. Nevertheless, the Group is in competition with a number of other companies in the same industry, not only in Japan, but also overseas.

In the Bioindustry Business, manufacturing and sales of reagents and scientific instruments do not require the licensing and approvals needed for medical instruments; in the absence of barriers such as patents, entry into the field is relatively easy. Accordingly, a large number of competitors exist in the market.

In the Gene Therapy Business, advances in technology have resulted in the development of therapies that excel in safety and performance, and acquisitions for manufacturing and sales approval are expanding overseas. Thus, a potentially enormous market has opened up, which has prompted many enterprises to conduct R&D for gene therapy, including large pharmaceutical companies and venture businesses in the U.S. and Europe.

In the AgriBio business, the functional food industry is booming and many businesses, not just food manufacturers, but many pharmaceutical companies as well, are entering this rapidly-growing market, and competition has intensified.

Under such circumstances, Takara Bio is developing technologies and products on a proprietary basis and in cooperation with universities and other outside organizations, and seeks exclusivity and differentiation by turning these into intellectual property wherever possible. However, such a development strategy may not necessarily be successful, and if competitors commercialize similar products and fields of technology first, the product development and performance of the Group could be affected.

5. Parent company of Takara Bio

As of March 31, 2018, Takara Holdings Inc. (listed on the First Section, Tokyo Stock Exchange) is the parent company of Takara Bio, owning 60.92% of the voting rights in the Company. The relationship between Takara Bio and Takara Holdings is as follows.

(1) Position of Takara Bio in the Takara Holdings Group (Takara Holdings and its group companies)

The extraordinary general meeting of shareholders of Takara Shuzo Co., Ltd. (now Takara Holdings), held on February 15, 2002, approved the proposal to spin off the operations of the company's alcoholic beverage and food business, and the biomedical business with the aim of making the most of the special characteristics of each respective business as well as creating a business environment for increasing growth potential and competitiveness in both. On this basis, Takara Shuzo and Takara Bio were established on April 1, 2002, through a corporate split, with each company becoming a fully owned subsidiary of Takara Holdings. Since then, Takara Holdings decreased the ownership of voting shares in Takara Bio to 60.92% as of March 31, 2018, through a third-party allotment of new shares by private and public offering.

The Takara Holdings Group consists of Takara Holdings, which is a pure holding company, and 65 group companies (63 subsidiaries and 2 affiliated companies). Within the Group, Takara Bio is positioned as a subsidiary specializing in the biotechnology business, and it promotes the biotechnology business along with its 11 group companies (subsidiaries).

(2) The food business of the Takara Holdings Group

Takara Healthcare Inc., which specializes in marketing and sales of functional foods of Takara Holdings Group companies, was founded on September 7, 2006, as a 100%-owned subsidiary of Takara Holdings. Following the establishment of Takara Healthcare, Takara Bio appointed Takara Healthcare as its sales agent for our functional foods. The Group's functional foods were sold to customers through Takara Healthcare, but the type of transactions changed to the outsourcing and contracting of manufacturing and research and development in April 2016. The amount of transactions with Takara Healthcare in fiscal 2018 was ¥688 million.

(3) Management of Group companies by Takara Holdings

Takara Holdings has established and operates the Takara Holdings Group Company Management Rules from the standpoint of consolidated business management. However, its objective is to maintain the independence and autonomy of Takara Holdings Group companies while seeking to maximize the corporate value of the entire Takara Holdings Group. The rules are also applicable to Takara Bio, and Takara Bio reports on the decisions made at the meetings of its Board of Directors to Takara Holdings. However, Takara Bio is not required to gain prior approval from Takara Holdings for the resolutions of its Board of Directors, and runs its operations independently.

In addition, Takara Holdings has established a variety of meetings within the Takara Holdings Group, and the ones that relate to Takara Bio are as follows.

Name of meeting	Participants	Role	Frequency of meetings
Group Strategy Meeting	Takara Holdings' directors, Advisor, and executive officers Takara Bio's directors and executive officers Takara Shuzo's directors and executive officers Takara Shuzo International's directors and executive officers	Confirmation of matters related to entire Group	In principle, once every two months
Bio Business Report Meeting	Takara Holdings' directors, Takara Bio's directors and executive officers	Reporting on the status of Takara Bio's activities, etc.	In principle, once a month

These meetings above are for the purpose of reporting between Takara Holdings' Group companies and do not currently obstruct the autonomy and independence of Takara Bio.

In addition, the following officers serve concurrently at Takara Bio and Takara Holdings as of June 28, 2018, the submission date of the annual securities report.

Name	Position at Takara Bio	Position at Takara Holdings
Hisashi Ohmiya	Chairman	Chairman
Koichi Nakao	President & CEO	Director

Mr. Hisashi Ohmiya was appointed as a chairman of the Board of Directors of Takara Bio based on its assessment that his experience and knowledge in the management of the Biomedical Group as a director of Takara Shuzo before the establishment of Takara Bio would be of use to the Company. Moreover, Mr. Koichi Nakao was appointed as director of Takara Holdings from the standpoint of consolidated business management within the holding company structure of Takara Holdings. These decisions were not made with the objective of giving Takara Holdings control over Takara Bio.

However, a change in the Group management strategy of Takara Holdings, although not currently envisaged, could affect the business and performance of Takara Bio.

(4) Transactions with the Takara Holdings Group

1) Real estate lease transactions related to sales sites

Takara Bio was established as a spin-off company of Takara Shuzo (now Takara Holdings) on April 1, 2002. As a result, the majority of Takara Shuzo's former real estate, including plants, sales offices and company housing, was newly transferred to both Takara Shuzo and Takara Bio. Whereas the alcoholic beverage and food business, and the biomedical business had previously been developed on one site, real estate lease transactions have occurred with Takara Shuzo and Takara Bio since these transfers. The real estate lease transactions relating to the lease of sales sites by Takara Bio are as follows. In the event of difficulties in the renewal of these transactions, Takara Bio revenue could be affected and relocation expenses incurred until we are able to secure an alternative site.

Property	Use	Lessor	Amount of transaction (Year ended March 31, 2018, Millions of yen)	Transaction terms, etc.
6F and basement, Takara Meiji Yasuda Building (Chuo-ku, Tokyo)	Takara Bio, Tokyo Branch	Takara Shuzo	13	Area: 140.85m^2 Type of agreement: Lease agreement Basis for computation of rental fees: Market price of land, buildings, etc.

Notes: 1. The above amounts do not include consumption tax, etc.
2. Terms of agreement and method of determining terms of agreement are decided by consultation based on appraisal by real estate appraiser.

2) Transactions related to use of trademark rights

Takara Holdings owns and controls some trademarks used by Takara Bio. Takara Bio has concluded trademark licensing agreements with Takara Holdings with regard to these trademarks and makes a fixed monthly payment per trademark, country and category based on the number of licenses. As of March 31, 2018, Takara Bio had licenses for the use of 85 registered and 1 pending trademarks in Japan and overseas. In the event that Takara Bio is unable to obtain licenses for the use of trademarks from Takara Holdings for any reason, it might affect our business strategies and performance.

Company name (Address)	Details of transaction	Amount of transaction (Year ended March 31, 2018, Millions of yen)	Terms of transaction, etc.
Takara Holdings Inc. (Shimogyo-ku, Kyoto)	License for use of trademarks	8	Type of agreement: License agreement for use of trademarks (concluded on March 29, 2004) Basis for computation of license fees: Costs for application and registration of trademark rights, with inclusion of future maintenance and management expenses Monthly license fee per trademark, country and category: ¥8,500 for registered trademarks, ¥1,700 for pending trademarks

Note: The above values do not include consumption taxes, etc.

3) Transactions related to outsourcing of computer-related services

Takara Bio has concluded agreements with Takara Holdings on the contracting of computer-related services and the lease of equipment. In the event of difficulties in the renewal of these transactions for any reason, it might affect our business strategies and performance.

Company name (Address)	Details of transaction	Amount of transaction (Year ended March 31, 2018, Millions of yen)	Terms of transaction, etc.
Takara Holding Inc. (Shimogyo-ku, Kyoto)	Contracting of computer-related services, lease of equipment, etc.	333	Type of agreement: Basic agreement on contracting of computer-related services and lease of equipment Content of services: Support for accounting system operation, support for client server operation, lease of PCs, purchase of supplies, and other

Notes: The above amounts do not include consumption tax, etc.

4) Other

Takara Bio has concluded a manufacturing and R&D outsourcing agreement related to functional foods and a licensing agreement for application and use of intellectual property with Takara Healthcare Inc. In addition, there are also purchases of packaging materials and other goods on an order basis with Takara Holdings Group companies (excludes Takara Bio Group companies). In the event of difficulties in the renewal of these transactions for any reason, it might affect our business strategies and performance.

6. Financing

The demand for funds, including R&D expenditure, capital expenditure, loans and investment, working funds, etc., is expected to rise due to the initiation of new businesses and expansion in business size. Thus, fundraising through a paid-in capital increase or other measures may possibly occur in the future. However, if financing does not proceed as planned, it could affect the Group's business strategies and performance.

7. Allocation of funding

In light of the dramatic changes concerning the Takara Bio Group's business environment with regards to the biotechnology industry, the Group's business may be significantly impacted by new technology innovation and new market players. There is therefore no guarantee that the expected results of capital and R&D investment—the intended target of funding received through public stock offerings—will be realized, and the Group's business strategies and performance may be affected.

8. Key operational agreements

An outline of the agreements considered crucial to the Takara Bio Group's operations is described below If these agreements end due to the expiry of the agreement term, cancellation, or some other reason or if revisions to the agreements are disadvantageous to the Group, it could affect the business strategy and performance of the Group.

(1) Technology In-licensing Agreements

Contracting company	Takara Bio Inc. (the Company)
Counterparty	Yukihiro Nishiyama, M's Science Corporation, Nagoya Industrial Science Research Institute
Contract	Memorandum on Changes to Agreements Concerning Equity Transfer, Joint Application, Licensing, Etc.
Conclusion date	November 26, 2010
Term	From November 26, 2010 to the patent expiration date
Summary	In 2010 Takara Bio took over M's Science Corporation's HF10 business and inherited all of the corporation's rights and obligations pertaining to HF10. This memorandum ensures Takara Bio's partial ownership of patent rights and exclusive use of patents pertaining to HF10. Further, Takara Bio will provide a milestone payment to the Nagoya Industrial Science Research Institute in addition to paying a running royalty tied to sales after the approval of HF10.

Contracting company	Takara Bio Inc. (the Company)
Counterparty	University of Medicine and Dentistry of New Jersey
Contract	Research Collaboration and License Agreement
Conclusion date	October 1, 2005
Term	From October 1, 2005, until all the licensed patents have expired
Summary	University of Medicine and Dentistry of New Jersey (UMDNJ) researches and develops protein expression systems and technology applications for gene therapy, based on technology for RNA cleavage enzyme (ribonucleases). Takara Bio has obtained exclusive worldwide rights to the expertise relating to technology for the MazF ribonuclease that UMDNJ has obtained as well as the results, expertise, and patents obtainable from the above-mentioned research and development. Takara Bio pays UMDNJ a certain amount in accordance with conclusion of the contract and research and development progress. Also, Takara Bio pays UMDNJ a certain running royalty linked to sales.

(2) Technology Out-licensing Agreements

Contracting company	Takara Bio Inc. (the Company)
Counterparty	MolMed S.p.A.
Contract	License Agreement
Conclusion date	December 9, 2001
Term	From December 9, 2001, until all the licensed patents have expired
Summary	Takara Bio granted MolMed non-exclusive rights in the United States and Europe for the implementation of the RetroNectin® Method. In addition to receiving lump sums linked to development milestones, Takara Bio receives fees for providing MolMed with RetroNectin® reagent that complies with the standards of clinical trials in the respective countries.

Contracting company	Takara Bio Inc. (the Company)
Counterparty	Otsuka Pharmaceutical Co., Ltd.
Contract	License Agreement for HF10 Development and Sales
Conclusion date	December 15, 2016
Term	From December 15, 2016 until the end of sales, unless terminated due to a reason stipulated in the contract
Summary	Takara Bio and Otsuka Pharmaceutical Co., Ltd. will implement co-development of gene therapies using oncolytic virus HF10 (“the products”) in Japan. Takara Bio gives Otsuka Pharmaceutical exclusive rights to commercialize the products for all indications in Japan. In addition to receiving an initial payment and lump sums according to the progress of development, Takara Bio will receive lump sums according to achievement of sales targets following the launch. Further, Takara Bio will manufacture the products for clinical trials and market sales and provide them to Otsuka Pharmaceutical for a fee.

(3) Sales Agreement

Contracting company	Takara Bio Inc. (the Company)
Counterparty	AB SCIEX
Contract	Distributorship Agreement
Conclusion date	April 15, 2011
Term	From April 1, 2011 to March 31, 2013 Note: If either party has not submitted a written refusal of renewal at least six months before the end of the term, the contract is automatically renewed for a further year, with the same process applying for subsequent years. However, irrespective of the period, Takara Bio can cancel this contract by providing AB SCIEX with six months prior notice in writing. Further, AB SCIEX can cancel this contract by providing Takara Bio with six months prior notice in writing.
Summary	AB SCIEX granted non-exclusive sales rights to sell its mass spectrometry systems in Japan to Takara Bio. Further, Takara Bio is not permitted to sell competing products.

9. Securing human resources

The Group is based on R&D, and technological innovation is steadily advancing in the biotechnology industry. Therefore, to maintain its competitive edge, the Group considers it essential to secure outstanding human resources with specialist knowledge and skills for R&D. Nevertheless, the Group cannot rule out the possibility that it may not be able to secure human resources as planned or that its personnel may leave Takara Bio. In this event, the Group's business strategy and performance could be affected.

10. Intellectual property rights

In the biotechnology industry, in which the success of business depends highly on the success of R&D, the Group regards securing intellectual property rights, including patents, as a critical factor, and the Group protects technologies developed in-house with patent rights to prevent competitors from imitating them. The Group will continue to place the highest priority on applications for patents based on R&D activities. However, not all of the applications may be successfully registered, and when a registered patent is made invalid for any reason, or expires, the Group's business strategies and performance may be affected.

In addition, the Group is aware that in the biotechnology industry, an area in which competition over R&D is continually growing, its patented technologies may be made obsolete at any time when a competitor develops superior technologies. When a competitor achieves such R&D, it could affect the Group's business strategy and performance.

Moreover, the Group intends to acquire promising patent rights held by others, or acquire licenses for the patent rights, to enable future expansion of its business. However, these strategies may incur large expenses. In addition, there is a possibility that the Group may not be able to acquire licenses for necessary patent rights held by others, and this could affect its business strategy and performance.

11. Product liability risks

All of the products that the Group handles are exposed to risks of compensation for product liability. If any defect is found in a product during its manufacture or sale, or during the clinical trial process; or if a health impairment is caused by any pharmaceutical product, medical device, regenerative medical product, food, or research reagent, any reagent and cell or gene therapy product used in a clinical trial, or specific processed cell, then the Group may be subject to product liability claims, and this could affect the promotion of the Group's business strategies and performance.

In addition, it is usual practice to conduct a voluntary recall when any problem arises with these products in view of the possible physical effects and damage to human bodies, and any such recall may require time and entail huge expense.

12. Legal regulations

(1) Bioindustry business and Gene Therapy business

R&D in the Bioindustry business is regulated by relevant legislation, such as the Law Concerning the Prevention of Radiation Hazards due to Radioisotopes, etc., and the Law Concerning the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms (hereinafter "Cartagena Law"); and the Group is committed to observing these laws and regulations. In addition, in the production, sale, and trade of reagents, etc., Takara Bio is required to follow relevant legislation, such as the Poisonous and Deleterious Substances Control Law and the Quarantine Law. However, reagents are not pharmaceutical products or regenerative medical products as defined by the Law on Securing

Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices, (hereinafter "Pharmaceuticals and Medical Devices Law"), and therefore are not regulated by that law.

Nevertheless, if these regulations are tightened or new regulations are introduced following expansion of the supporting research industry, it could affect the Group's business strategies and performance.

Moreover, the relevant laws and regulations such as the Pharmaceuticals and Medical Devices Law, the Act on the Safety of Regenerative Medicine, and the Cartagena Law regulate commercialization of the cell and gene therapies that Takara Bio is aiming to accomplish, and the Group intends to comply with such laws and regulations. The relevant laws and regulations are targeted at securing the quality, effectiveness, and safety of pharmaceutical products, regenerative medical products, quasi-pharmaceutical products, specific processed cells, cosmetics, and medical devices, and the trading of these products requires approval or permission from the relevant authorities. If the Group is unable to obtain permission to continue conducting research projects as part of its Gene Therapy business, the Group's business strategies and performance could be affected.

(2) AgriBio business

In its functional food business, the Group maintains business facilities; manages tools, containers, and packages; and controls production processes and sales activities in accordance with the provisions of the Food Sanitation Law. The Group observes the Food Sanitation Law and takes extra care to manage food hygiene. Food hygiene matters are an unavoidable issue for a company that handles food, and the Group is committed to strengthening its system for the management of food hygiene in the future. However, if any problem should arise related to this issue, the business strategies and performance of the Group could be affected.

Beginning in October 2006, Takara Bio has been marketing and selling its functional foods through Takara Healthcare, a 100%-owned subsidiary of Takara Holdings. In selling functional foods and materials in bulk, Takara Bio and Takara Healthcare are making every effort to comply with the sales methods based on the Specified Commercial Transaction Law, the Food Labeling Act, the Act on Standardization and Proper Quality Labeling of Agricultural and Forestry Products, the Pharmaceuticals and Medical Devices Law, the Health Promotion Law, and the Act against Unjustifiable Premiums and Misleading Representation. The Group must also handle labeling and advertising in compliance with all the relevant laws. However, due to the nature of functional foods in general, the Group cannot completely rule out the possibility of violating a provision on mandatory labeling requirements. If any violation occurs, trust in the Group could deteriorate, which may adversely affect the Group's business strategies and performance.

13. Risks of lawsuits, etc.

As of June 28, 2018, the submission date of the annual securities report, there are no major ongoing lawsuits with third parties relating to the Takara Bio's business. However, the Group carries out wide-ranging R&D activities and business expansion. Therefore, there is no guarantee that lawsuits will not arise again in the future. The Group is striving to enhance its internal control and strengthen its compliance system when it carries out its business operations. However, in spite of all these efforts, there still remains a possibility of lawsuits being brought against the Group. The very fact that a lawsuit is brought against the Group and the results of such a lawsuit may seriously affect the Group's business strategies and performance.

Moreover, in order to prevent the Group from being sued concerning intellectual property rights, the Group

has been conducting patent investigations through patent offices, etc., and the Group is not aware that any of its products are in conflict with the patent rights of others. However, it is difficult for an R&D-based company such as Takara Bio Group to completely avoid the occurrence of such issues involving the infringement of intellectual property rights. When such problems with the infringement of intellectual property rights do arise, the Group could be subject to demands for compensation for damages, sales injunctions, and payment of royalties. As a result, the expansion of the relevant business and the Group's business strategy and performance could be affected.

In addition, if the Group's business partners or licensors are involved in disputes, the Group may no longer be able to sell the relevant products or may itself become involved in lawsuits. In such cases, the resolution of the problem could take a long time and may incur huge expenses, and the Group's business strategy and performance could be affected depending on the circumstances.

14. About the impairment of fixed assets

The Takara Bio group possesses a variety of fixed assets that serve the purposes of our businesses, and intangible assets such as goodwill obtained through corporate acquisitions and technology assets. However, in the event that projected future cash flow from owned assets declines due to the idling of production facilities and decline in utilization rates accompanying rapid changes in the business environment, or due to acquired businesses operating below initial plans, impairment losses may result from to the application of fixed asset impairment accounting, and may have an effect on the business results of the group.

15. Exchange rate fluctuation

The translation into yen of costs, income, and trade receivables and payables associated with business undertaken by the Group denominated in foreign currencies is exposed to currency exchange rate fluctuation risk. The Group takes such measures as conducting forward foreign-exchange contracts to minimize the negative impact of exchange rate fluctuation, but such risks cannot be completely avoided.

Additionally, sales, expenses, assets, and other such line items on the foreign currency financial statements of overseas consolidated subsidiaries are converted into yen for the purpose of creating consolidated financial statements. Consequently, exchange rate fluctuations may affect the Group's business performance.

16. Overseas business expansion

The Group conducts business operations that include R&D, manufacturing, and sales in regions that include North America, Europe, and Asia (mainly China). Significant changes concerning the economic, political, or social climate in these countries and regions, the occurrence of problems concerning international taxation such as transfer price taxation systems, or the occurrence of natural disasters such as earthquakes may affect the Group's business strategies and performance.

17. Natural disasters

The Group's business activities may be impeded by natural disasters such as storms, earthquakes, lightning strikes, and floods, by fires or other accidents, or by worldwide pandemics of infectious diseases. To minimize damage suffered in such cases, we conduct inspections and training, and create communication systems and business continuity plans. Nevertheless, damage caused to people or things as a result of such incidents may affect the Group's business strategies and performance.

Consolidated Financial Statements

Takara Bio Inc. and Consolidated Subsidiaries

Consolidated Balance Sheet
March 31, 2018

ASSETS	Millions of Yen 2018	2017	Thousands of U.S. Dollars (Note 1) 2018
CURRENT ASSETS:			
Cash and cash equivalents (Note 14)	**¥ 10,051**	¥ 22,200	**$ 94,820**
Marketable securities (Notes 4 and 14)	**2,000**	2,000	**18,867**
Time deposits (Note 14)	**7,485**	5,877	**70,613**
Notes and accounts receivable:			
Trade (Note 14)	**8,031**	7,455	**75,764**
Other	**221**	193	**2,084**
Allowance for doubtful accounts (Note 14)	**(42)**	(30)	**(396)**
Inventories (Note 5)	**6,011**	5,462	**56,707**
Deferred tax assets (Note 12)	**515**	252	**4,858**
Prepaid expenses and other current assets	**756**	552	**7,132**
Total current assets	**35,032**	43,964	**330,490**
PROPERTY, PLANT AND EQUIPMENT (Note 6):			
Land	**6,588**	7,297	**62,150**
Buildings and structures	**12,825**	12,699	**120,990**
Machinery, equipment and vehicles	**7,561**	6,866	**71,330**
Tools, furniture and fixtures	**7,080**	6,174	**66,792**
Lease assets (Note 13)	**16**	23	**150**
Construction in progress	**63**	34	**594**
Total property, plant and equipment	**34,135**	33,096	**322,028**
Accumulated depreciation	**(15,601)**	(13,518)	**(147,179)**
Net property, plant and equipment	**18,534**	19,577	**174,849**
INVESTMENTS AND OTHER ASSETS:			
Investment securities (Notes 4 and 14)	**2**	2	**18**
Goodwill (Notes 3 and 6)	**8,259**	1,213	**77,915**
Technology assets (Note 3)	**4,670**		**44,056**
Trademarks	**618**	638	**5,830**
Long-term prepaid expenses	**800**	856	**7,547**
Asset for retirement benefits (Note 8)	**95**	40	**896**
Deferred tax assets (Note 12)	**139**	26	**1,311**
Other assets	**700**	834	**6,603**
Allowance for doubtful accounts		(11)	
Total investments and other assets	**15,286**	3,600	**144,207**
TOTAL	**¥ 68,854**	¥ 67,143	**$ 649,566**

See notes to consolidated financial statements.

LIABILITIES AND EQUITY	Millions of Yen 2018	2017	Thousands of U.S. Dollars (Note 1) 2018
CURRENT LIABILITIES:			
Current portion of long-term debt (Notes 7, 13, and 14)		¥ 48	
Notes and accounts payable (Note 14):			
Trade	**¥ 1,875**	1,944	**$ 17,688**
Construction and other	**1,900**	2,054	**17,924**
Accrued income taxes (Notes 12 and 14)	**431**	375	**4,066**
Accrued expenses	**1,031**	1,112	**9,726**
Other current liabilities (Note 15)	**506**	491	**4,773**
Total current liabilities	**5,745**	6,025	**54,198**
LONG-TERM LIABILITIES:			
Long-term debt (Notes 7 and 14)		82	
Liability for retirement benefits (Note 8)	**659**	622	**6,216**
Deferred tax liabilities (Note 12)	**183**	210	**1,726**
Other long-term liabilities	**307**	215	**2,896**
Total long-term liabilities	**1,149**	1,131	**10,839**
COMMITMENTS AND CONTINGENT LIABILITIES (Notes 13 and 15)			
EQUITY (Note 9):			
Common stock, authorized, 400,000,000 shares; issued, 120,415,600 shares in 2018 and 2017	**14,965**	14,965	**141,179**
Capital surplus	**32,893**	32,893	**310,311**
Retained earnings	**12,285**	10,432	**115,896**
Accumulated other comprehensive income:			
Foreign currency translation adjustments	**2,042**	2,023	**19,264**
Defined retirement benefit plans (Note 8)	**(334)**	(429)	**(3,150)**
Total	**61,852**	59,884	**583,509**
Noncontrolling interests	**106**	100	**1,000**
Total equity	**61,959**	59,985	**584,518**
TOTAL	**¥ 68,854**	¥ 67,143	**$ 649,566**

See notes to consolidated financial statements.

Takara Bio Inc. and Consolidated Subsidiaries

Consolidated Statement of Income

Year Ended March 31, 2018

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	2018
NET SALES	**¥ 32,312**	¥ 29,375	**$ 304,830**
COST OF SALES (Notes 8 and 13)	**13,657**	12,422	**128,839**
Gross profit	**18,655**	16,952	**175,990**
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (Notes 8, 11, and 13)	**15,099**	13,749	**142,443**
Operating income	**3,555**	3,202	**33,537**
OTHER INCOME (EXPENSES):			
Interest income	**77**	108	**726**
Subsidy income	**197**	226	**1,858**
Foreign exchange gain (loss)	**5**	(44)	**47**
Interest expense	**(19)**	(2)	**(179)**
Loss on sales and disposals of property, plant and equipment	**(54)**	(105)	**(509)**
Impairment loss (Note 6)	**(446)**	(667)	**(4,207)**
Other, net	**44**	88	**415**
Other expenses, net	**(194)**	(397)	**(1,830)**
INCOME BEFORE INCOME TAXES	**3,361**	2,805	**31,707**
INCOME TAXES (Note 12):			
Current	**1,155**	1,492	**10,896**
Deferred	**(132)**	(43)	**(1,245)**
Total income taxes	**1,023**	1,449	**9,650**
NET INCOME	**2,338**	1,356	**22,056**
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	**3**	3	**28**
NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT	**¥ 2,335**	¥ 1,352	**$ 22,028**

	Yen		U.S. Dollars (Note 1)
PER SHARE OF COMMON STOCK (Notes 2.s and 17):			
Basic net income	**¥ 19.39**	¥ 11.24	**$ 0.18**
Cash dividends applicable to the year	**4.50**	4.00	**0.04**

See notes to consolidated financial statements.

Takara Bio Inc. and Consolidated Subsidiaries

Consolidated Statement of Comprehensive Income
Year Ended March 31, 2018

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	2018
NET INCOME	**¥ 2,338**	¥ 1,356	**$ 22,056**
OTHER COMPREHENSIVE INCOME (LOSS) (Note 16):			
Foreign currency translation adjustments	**21**	(1,091)	**198**
Defined retirement benefit plans	**95**	(172)	**896**
Total other comprehensive income (loss)	**117**	(1,264)	**1,103**
COMPREHENSIVE INCOME	**¥ 2,455**	¥ 92	**$ 23,160**
TOTAL COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO:			
Owners of the parent	**¥ 2,449**	¥ 94	**$ 23,103**
Noncontrolling interests	**5**	(2)	**47**

See notes to consolidated financial statements.

Takara Bio Inc. and Consolidated Subsidiaries

Consolidated Statement of Changes in Equity
Year Ended March 31, 2018

	Thousands	Millions of Yen							
					Accumulated Other Comprehensive Income				
	Number of Shares of Common Stock Outstanding	Common Stock	Capital Surplus	Retained Earnings	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans	Total	Noncontrolling Interests	Total Equity
BALANCE, APRIL 1, 2016	120,415	¥14,965	¥32,893	¥ 9,295	¥3,109	¥(257)	¥60,007	¥102	¥60,110
Net income attributable to owners of the parent				1,352			1,352		1,352
Cash dividends, ¥1.8 per share				(216)			(216)		(216)
Net change in the year					(1,086)	(172)	(1,258)	(2)	(1,260)
BALANCE, MARCH 31, 2017	120,415	14,965	32,893	10,432	2,023	(429)	59,884	100	59,985
Net income attributable to owners of the parent				**2,335**			**2,335**		**2,335**
Cash dividends, ¥4.0 per share				**(481)**			**(481)**		**(481)**
Capital decrease of consolidated subsidiaries			**(0)**				**(0)**	**0**	
Net change in the year					**19**	**95**	**114**	**5**	**120**
BALANCE, MARCH 31, 2018	**120,415**	**¥14,965**	**¥32,893**	**¥12,285**	**¥2,042**	**¥(334)**	**¥61,852**	**¥106**	**¥61,959**

	Thousands of U.S. Dollars (Note 1)							
				Accumulated Other Comprehensive Income				
	Common Stock	Capital Surplus	Retained Earnings	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans	Total	Noncontrolling Interests	Total Equity
BALANCE, MARCH 31, 2017	$141,179	$310,311	$ 98,415	$19,084	$(4,047)	$564,943	$ 943	$565,896
Net income attributable to owners of the parent			**22,028**			**22,028**		**22,028**
Cash dividends, $0.03 per share			**(4,537)**			**(4,537)**		**(4,537)**
Capital decrease of consolidated subsidiaries		**(0)**				**(0)**	**0**	
Net change in the year				**179**	**896**	**1,075**	**47**	**1,132**
BALANCE, MARCH 31, 2018	**$141,179**	**$310,311**	**$115,896**	**$19,264**	**$(3,150)**	**$583,509**	**$1,000**	**$584,518**

See notes to consolidated financial statements.

Takara Bio Inc. and Consolidated Subsidiaries

Consolidated Statement of Cash Flows

Year Ended March 31, 2018

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	2018
OPERATING ACTIVITIES:			
Income before income taxes	**¥ 3,361**	¥ 2,805	**$ 31,707**
Adjustments for:			
Income taxes paid	**(1,175)**	(1,592)	**(11,084)**
Depreciation and amortization	**3,058**	1,884	**28,849**
Loss on sales and disposals of property, plant and equipment	**54**	105	**509**
Impairment loss (Note 6)	**446**	667	**4,207**
Changes in assets and liabilities:			
Increase in trade notes and accounts receivable	**(246)**	(720)	**(2,320)**
Increase in inventories	**(301)**	(594)	**(2,839)**
(Decrease) increase in trade notes and accounts payable	**(341)**	288	**(3,216)**
Increase in liability for retirement benefits	**35**	135	**330**
Other, net	**(955)**	604	**(9,009)**
Total adjustments	**574**	778	**5,415**
Net cash provided by operating activities	**3,935**	3,584	**37,122**
INVESTING ACTIVITIES:			
Increase in time deposits	**(12,383)**	(5,776)	**(116,820)**
Decrease in time deposits	**10,860**	13,392	**102,452**
Proceeds from sales of property, plant and equipment	**465**	14	**4,386**
Payments to acquire marketable securities	**(4,000)**	(7,026)	**(37,735)**
Proceeds from sales of marketable securities	**4,000**	14,679	**37,735**
Purchases of property, plant and equipment and intangible assets	**(1,499)**	(1,443)	**(14,141)**
Purchases of investments in subsidiaries with changes in consolidation scope (Note 3)	**(12,396)**		**(116,943)**
Increase in long-term prepaid expenses	**(93)**	(74)	**(877)**
Other, net	**291**	(272)	**2,745**
Net cash (used in) provided by investing activities	**(14,755)**	13,493	**(139,198)**
FINANCING ACTIVITIES:			
Decrease in short-term bank loans, net		(14)	
Repayments of long-term debt	**(176)**	(48)	**(1,660)**
Redemption of bonds	**(547)**		**(5,160)**
Cash dividends paid	**(480)**	(216)	**(4,528)**
Net cash used in financing activities	**(1,205)**	(280)	**(11,367)**
FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS	**(123)**	(166)	**(1,160)**
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	**(12,149)**	16,631	**(114,613)**
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	**22,200**	5,568	**209,433**
CASH AND CASH EQUIVALENTS, END OF YEAR	**¥ 10,051**	¥ 22,200	**$ 94,820**

See notes to consolidated financial statements.

1 BASIS OF PRESENTATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in accordance with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards.

In preparing these consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. In addition, certain reclassifications have been made in the 2017 consolidated financial statements to conform to the classifications used in 2018.

The consolidated financial statements are stated in Japanese yen, the currency of the country in which Takara Bio Inc. (the "Company") is incorporated and operates. Japanese yen figures of less than a million yen are rounded down to the nearest million yen, except for per share data. The translations of Japanese yen amounts into U.S. dollar amounts are included solely for the convenience of readers outside Japan and have been made at the rate of ¥106 to $1, the approximate rate of exchange at March 31, 2018. U.S. dollar figures of less than a thousand dollars are rounded down to the nearest thousand dollars, except for per share data. Such translations should not be construed as representations that the Japanese yen amounts could be converted into U.S. dollars at that or any other rate.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Consolidation — The consolidated financial statements as of March 31, 2018, include the accounts of the Company and its 11 (11 in 2017) subsidiaries (together, the "Group").

Under the control and influence concepts, those companies in which the Company, directly or indirectly, is able to exercise control over operations are fully consolidated.

The investment in the remaining unconsolidated subsidiary is stated at cost. If the equity method of accounting had been applied to the investment in the company, the effect on the accompanying consolidated financial statements would not be material.

All significant intercompany balances and transactions have been eliminated in consolidation. All material unrealized profit included in assets resulting from transactions within the Group is also eliminated.

b. Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements — Under Accounting Standards Board of Japan ("ASBJ") Practical Issues Task Force ("PITF") No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements," the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should in principle be unified for the preparation of the consolidated financial statements. However, financial statements prepared by foreign subsidiaries in accordance with either International Financial Reporting Standards or generally accepted accounting principles in the United States of America (Financial Accounting Standards Board Accounting Standards Codification—"FASB ASC") tentatively may be used for the consolidation process, except for the following items that should be adjusted in the consolidation process so that net income is accounted for in accordance with Japanese GAAP, unless they are not material: (a) amortization of goodwill; (b) scheduled amortization of actuarial gain or loss of pensions that has been recorded in equity through other comprehensive income; (c) expensing capitalized development costs of R&D; and (d) cancellation of the fair value model of accounting for property, plant and equipment and investment properties and incorporation of the cost model of accounting.

c. Business Combinations — Business combinations are accounted for using the purchase method. Acquisition-related costs, such as advisory fees or professional fees, are accounted for as expenses in the periods in which the costs are incurred. If the initial accounting for a business combination is incomplete by the end of the reporting period in which the business combination occurs, an acquirer shall report in its financial statements provisional amounts for the items for which the accounting is incomplete. During the measurement period, which shall not exceed one year from the acquisition, the acquirer shall retrospectively adjust the provisional amounts recognized at the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date and that would have affected the measurement of the amounts recognized as of that date. Such adjustments shall be recognized as if the accounting for the business combination had been completed at the acquisition date. A parent's ownership interest in a subsidiary might change if the parent purchases or sells ownership interests in its subsidiary. The carrying amount of noncontrolling interest is adjusted to reflect the change in the parent's ownership interest in its subsidiary while the parent retains its controlling interest in its subsidiary. Any difference between the fair value of the consideration received or paid and the amount by which the noncontrolling interest is adjusted is accounted for as capital surplus as long as the parent retains control over its subsidiary.

Takara Bio USA Holdings Inc., a wholly owned subsidiary of the Company, acquired 100% of the shares of Rubicon Genomics,

Inc. on January 17, 2017 (US Pacific Standard Time), and of WaferGen Bio-systems, Inc. on February 28, 2017 (US Pacific Standard Time). The Company accounted for these acquisitions by the purchase method of accounting (see Note 3).

d. Cash Equivalents — Cash equivalents are short-term investments that are readily convertible into cash and exposed to insignificant risk of changes in value. Cash equivalents include time deposits, all of which mature or become due within three months of the date of acquisition.

e. Marketable and Investment Securities — The Group's marketable and investment securities consist of held-to-maturity debt securities and available-for-sale securities. Marketable and investment securities are classified and accounted for, depending on management's intent, as follows: (1) held-to-maturity debt securities are reported at amortized cost; and (2) marketable available-for-sale securities are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported in a separate component of equity. The cost of securities sold is determined by the moving-average method. Nonmarketable available-for-sale securities are stated at cost, determined by the moving-average method.

For other-than-temporary declines in fair value, marketable and investment securities are reduced to net realizable value by a charge to income.

f. Inventories — Inventories are stated principally at the lower of cost, determined by the weighted-average method, or net selling value.

g. Property, Plant and Equipment — Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment of the Company and its subsidiaries is computed principally by the straight-line method. The range of useful lives is principally from 6 to 60 years for buildings and structures, from 4 to 10 years for machinery, equipment and vehicles, and from 2 to 20 years for tools, furniture and fixtures.

h. Goodwill — The excess of the cost of an acquisition over the fair value of the net assets of an acquired subsidiary at the date of acquisition is recorded as goodwill and amortized on a straight-line basis over a certain period, not exceeding 20 years.

Takara Bio USA, Inc., the Company's consolidated subsidiary, records goodwill according to FASB ASC 350, "Intangibles – Goodwill and Other." Under ASC 350, goodwill is tested locally for impairment at least annually. Additionally the goodwill is amortized on a straight-line basis over a period of 20 years in the Group's consolidated financial statements in accordance with ASBJ PITF No. 18, which was subsequently revised in February 2010 and March 2015 to reflect revisions of the relevant Japanese GAAP or accounting standards in other jurisdictions issued by ASBJ as described in Note 2.b.

i. Long-Lived Assets — The Group reviews its long-lived assets for impairment whenever events or changes in circumstance indicate the carrying amount of an asset or asset group may not be recoverable. An impairment loss is recognized if the carrying amount of an asset or asset group exceeds the sum of the undiscounted future cash flows expected to result from the continued use and eventual disposition of the asset or asset group. The impairment loss would be measured as the amount by which the carrying amount of the asset exceeds its recoverable amount, which is the higher of the discounted cash flows from the continued use and eventual disposition of the asset or the net selling price at disposition.

j. Retirement and Pension Plans — The employees' retirement benefits programs of the Company and certain subsidiaries consist of an unfunded lump-sum severance payment plan, a defined benefit pension plan and a defined contribution pension plan as described in Note 8.

The Group accounted for the liability for retirement benefits based on the projected benefit obligations and plan assets at the consolidated balance sheet date. The projected benefit obligations are attributed to periods on a benefit formula basis. Actuarial gains and losses and past service costs that are yet to be recognized in profit or loss are recognized within accumulated other comprehensive income after adjusting for tax effects, and are recognized in profit or loss over 10 years, no longer than the expected average remaining service period of the employees.

k. Allowance for Doubtful Accounts — Allowance for doubtful accounts is stated in amounts considered to be appropriate based on the Group's past credit loss experience and an evaluation of potential losses in the receivables outstanding.

l. Asset Retirement Obligations — An asset retirement obligation is recorded for a legal obligation imposed either by law or contract that results from the acquisition, construction, development, and normal operation of a tangible fixed asset and is associated with the retirement of such tangible fixed asset. The asset retirement obligation is recognized as the sum of the discounted cash flows required for the future asset retirement and is recorded in the period in which the obligation is incurred if a reasonable estimate can be made. If a reasonable estimate of the asset retirement obligation cannot be made in the period the asset retirement obligation is incurred, the liability should be recognized when a reasonable estimate of the asset retirement obligation can be made. Upon initial recognition of a liability for an asset retirement obligation, an asset retirement cost is capitalized by increasing the carrying amount of the related fixed asset by the amount of the liability. The asset retirement cost is subsequently allocated to expense through depreciation over the remaining useful life of the asset. Over time, the liability is accreted to its present value each period. Any subsequent revisions to the timing or the amount of the original estimate of undiscounted cash flows are reflected as an adjustment to the carrying amount of the liability and the capitalized amount of the related asset retirement cost.

m. R&D Costs — R&D costs are charged to income as incurred.

n. Leases — Finance lease transactions are capitalized by recognizing lease assets and lease obligations in the balance sheet.

o. Income Taxes — The provision for income taxes is computed based on the pretax income included in the consolidated

statement of income. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred taxes are measured by applying currently enacted income tax rates to the temporary differences.

p. Foreign Currency Transactions — All short-term and long-term monetary receivables and payables denominated in foreign currencies are translated into Japanese yen at the exchange rates at the consolidated balance sheet date. The foreign exchange gains and losses from translation are recognized in the consolidated statement of income to the extent that they are not hedged by forward exchange contracts.

q. Foreign Currency Financial Statements — The balance sheet accounts of the consolidated foreign subsidiaries are translated into Japanese yen at the current exchange rate as of the balance sheet date, except for equity, which is translated at the historical rate. Differences arising from such translation are shown as "Foreign currency translation adjustments" under accumulated other comprehensive income in a separate component of equity. Revenue and expense accounts of consolidated foreign subsidiaries are translated into Japanese yen at the average exchange rate.

r. Derivative and Hedging Activities — The Group uses derivative financial instruments to manage its exposures to fluctuations in foreign currency exchange rates. Foreign currency forward contracts, nondeliverable forwards and currency options are utilized by the Group to reduce foreign currency exchange rate risks. The Group does not enter into derivatives for trading or speculative purposes.

Derivative financial instruments are classified and accounted for as follows: (1) all derivatives are recognized as either assets or liabilities and measured at fair value, and gains or losses on derivative transactions are recognized in the consolidated statement of income; and (2) for derivatives used for hedging purposes, if such derivatives qualify for hedge accounting because of high correlation and effectiveness between the hedging instruments and the hedged items, gains or losses on derivatives are deferred until maturity of the hedged transactions.

Foreign currency forward contracts are utilized to hedge foreign currency exposures in collection of certain receivables and payments of certain purchases and royalties. Payables denominated in foreign currencies are translated at the contracted rates if the forward contracts qualify for hedge accounting.

s. Per Share Information — Basic net income per share is computed by dividing net income attributable to common shareholders by the weighted-average number of common shares outstanding for the period.

Cash dividends per share presented in the accompanying consolidated statement of income are dividends applicable to the respective fiscal years, including dividends to be paid after the end of the year.

t. New Accounting Pronouncements — On March 30, 2018, the ASBJ issued ASBJ Statement No. 29, "Accounting Standard for Revenue Recognition," and ASBJ Guidance No. 30, "Implementation Guidance on Accounting Standard for Revenue Recognition." The core principle of the standard and guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. An entity should recognize revenue in accordance with that core principle by applying the following steps:

Step 1: Identify the contract(s) with a customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to the performance obligations in the contract
Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

The accounting standard and guidance are effective for annual periods beginning on or after April 1, 2021. Earlier application is permitted for annual periods beginning on or after April 1, 2018.

The Company expects to apply the accounting standard and guidance for annual periods beginning on or after April 1, 2021, and is in the process of measuring the effects of applying the accounting standard and guidance in future applicable periods.

3 BUSINESS COMBINATIONS

Year Ended March 31, 2018

(Business Combination by Acquisition)

1. Rubicon Genomics, Inc.

On December 15, 2016, the Board of Directors of the Company resolved that Takara Bio USA Holdings Inc. ("TBUSH"), a wholly owned subsidiary of the Company, would acquire all shares of Rubicon Genomics, Inc. ("Rubicon"). TBUSH completed the acquisition procedure on January 17, 2017 (US Pacific Standard Time). The fiscal year-end of TBUSH is December 31.

a. Outline of the business combination

(1) Name of acquired company and its business outline

Name of the acquired company:Rubicon Genomics, Inc.

Business outline:Manufacturing and sales of research reagents

(2) Major reason for the business combination

The Group is concentrating on developing next-generation sequencing reagent kits that are used in a wide range of fields from basic research to industrial applications. As Rubicon joins the Group, the Group complements its sample preparation technology for ultra-low DNA sequence analysis and sample preparation technology for ultra-low RNA sequence analysis; therefore the Group will be able to provide a wide range of products and services in the field of ultra-low nucleic acid analysis.

Additionally, the Group will be able to provide products and services to a wide range of fields from basic research to industrial application by adding WaferGen Bio-systems, Inc.'s pre-processing system for next-generation sequence analysis.

(3) Date of business combination

January 17, 2017 (US Pacific Standard Time)

(4) Legal form of business combination

Acquisition of shares

(5) Name of the company after the combination

Rubicon Genomics, Inc.

Rubicon merged with Takara Bio USA, Inc., a wholly owned subsidiary of TBUSH, on March 31, 2017 (US Pacific Standard Time).

(6) Ratio of voting rights acquired

100%

(7) Basis for determining the acquirer

It is based on the fact that TBUSH acquired 100% of voting rights by means of share acquisition in consideration for cash.

b. The period for which the operations of the acquired company are included in the consolidated financial statements

The operations of the acquired company from January 17, 2017 to December 31, 2017, were included in the consolidated statement of income for the year ended March 31, 2018.

c. Acquisition cost of the acquired company and related details of each class of consideration

	Thousands of U.S. Dollars
Consideration for acquisition Cash	**$ 74,426**
Acquisition cost	**$ 74,426**

d.Major acquisition-related costs

	Thousands of U.S. Dollars
Advisory fees and commissions to the lawyers and financial institutions	**$ 2,934**

e. Amount of goodwill incurred, reasons for the goodwill incurred, and the method and period of amortization

(1) Amount of goodwill incurred

¥5,060 million ($47,735 thousand)

(2) Reasons for the goodwill incurred

Goodwill is incurred from expected excess earnings power in the future arising from further business development.

(3) Method and period of amortization

The goodwill is amortized on a straight-line basis over 20 years.

f. The assets acquired and the liabilities assumed at the acquisition date are as follows:

	Millions of Yen	Thousands of U.S. Dollars
Current assets	**¥ 552**	**$ 5,207**
Non-current assets	**8,890**	**83,867**
Total assets acquired	**¥9,443**	**$89,084**
Current liabilities	**¥ 391**	**$ 3,688**
Non-current liabilities	**554**	**5,226**
Total liabilities assumed	**¥ 946**	**$ 8,924**

g. Amount of major identifiable intangible assets other than goodwill, its details, and weighted-average useful life:

	Millions of Yen	Thousands of U.S. Dollars	Weighted-Average Useful Life (Years)
Technology assets	**¥3,664**	**$34,566**	**7**
Customer-related assets	**68**	**641**	**9**

h. Supplemental cash flow information

The breakdown of assets and liabilities at the beginning of consolidation of Rubicon as the result of the acquisition of shares and reconciliation between cash paid for the shares of Rubicon and payment for the acquisition, net of cash and cash equivalents acquired, was as follows:

	Millions of Yen	Thousands of U.S. Dollars
Current assets	¥ 552	$ 5,207
Non-current assets	3,830	36,132
Goodwill	5,060	47,735
Current liabilities	(391)	(3,688)
Non-current liabilities	(554)	(5,226)
Cash paid for the shares	¥8,496	$80,150
Cash and cash equivalents of consolidated subsidiary	(308)	(2,905)
Payment for the acquisition of shares of Rubicon, net of cash and cash equivalents acquired	¥8,187	$77,235

i . Pro forma information (unaudited)

If this business combination had been completed as of January 1, 2017, the beginning of the current fiscal year, the effects on the consolidated statement of income for the year ended March 31, 2018, would be as follows:

	Millions of Yen	Thousands of U.S. Dollars
Sales	¥62	$584
Operating loss	(146)	(1,377)
Loss before income taxes	(1,114)	(10,509)
Net loss attributable to owners of the parent	(1,114)	(10,509)

	Yen	U.S. Dollars
Per share of common stock:		
Basic net loss	¥(9.25)	$(0.08)

Outline of the method of calculation for the effects above:

We estimated the approximate impact of the difference between the sales and profit loss information of the acquiree, calculated assuming that the business combination was completed as of the beginning of the fiscal year, and sales and profit and loss information of the acquiree included in the consolidated statement of income of the acquirer.

2. WaferGen Bio-systems, Inc.

On May 13, 2016, the Board of Directors of the Company resolved that TBUSH would acquire all shares of WaferGen Bio-systems, Inc. (“WaferGen”), and TBUSH entered into a merger agreement with WaferGen on the same day. Based on the agreement, TBUSH completed the acquisition on February 28, 2017 (US Pacific Standard Time).

a. Outline of the business combination

(1) Name of acquired company and its business outline

Name of the acquired company: WaferGen Bio-systems, Inc.

Business outline: Manufacturing and sales of research reagents and equipment

(2) Major reason for the business combination

The Group supplies research reagents, scientific instruments, and contracted services to biotechnology researchers. Specifically, the Group focuses on development of reagent kits for next-generation sequencers and reagent kits using SMART technology which efficiently amplifies genes from micro amounts of RNA samples under the brand name of Clontech®. Currently, the Group is developing reaction reagents optimized for automatic analysis devices targeted for use in the clinical field.

WaferGen provides devices and reagent kits for single-cell analysis, and their unique massively-parallel qPCR device for small amount samples, to biotechnology companies, pharmaceutical companies, and clinical laboratories.

The Group expects synergies and increased sales of equipment and single-cell reagent kits from the combination of WaferGen technology, including single-cell analysis and molecular biotechnology of the Group.

(3) Date of business combination

February 28, 2017 (US Pacific Standard Time)

(4) Legal form of business combination

Acquisition of shares

(5) Name of the company after the combination

WaferGen Bio-systems, Inc.

WaferGen merged with Takara Bio USA, Inc., a wholly owned subsidiary of TBUSH, on May 31, 2017 (US Pacific Standard Time).

(6) Ratio of voting rights acquired

100%

(7) Basis for determining the acquirer

It is based on the fact that TBUSH acquired 100% of voting rights by means of share acquisition in consideration for cash.

b. The period for which the operations of the acquired company are included in the consolidated financial statements

The operations of the acquired company from March 1, 2017 to December 31, 2017, were included in the consolidated statement of income for the year ended March 31, 2018.

c. Acquisition cost of the acquired company and related details of each class of consideration

	Thousands of U.S. Dollars
Consideration for acquisition Cash	$37,545
Acquisition cost	$37,545

d. Major acquisition-related costs

	Thousands of U.S. Dollars
Advisory fees and commissions to the lawyers and financial institutions	**$ 3,855**

e. Amount of goodwill incurred, reasons for the goodwill incurred, and the method and period of amortization

(1) Amount of goodwill incurred

¥2,550 million ($24,056 thousand)

(2) Reasons for the goodwill incurred

Goodwill is incurred from expected excess earnings power in the future arising from further business development.

(3) Method and period of amortization

The goodwill is amortized on a straight-line basis over 20 years.

f. The assets acquired and the liabilities assumed at the acquisition date are as follows:

	Millions of Yen	Thousands of U.S. Dollars
Current assets	**¥ 525**	**$ 4,952**
Non-current assets	**5,181**	**48,877**
Total assets acquired	**¥5,706**	**$53,830**
Current liabilities	**¥ 928**	**$ 8,754**
Non-current liabilities	**556**	**5,245**
Total liabilities assumed	**¥1,484**	**$14,000**

g. Amount of major identifiable intangible assets other than goodwill, its details, and weighted-average useful life:

	Millions of Yen	Thousands of U.S. Dollars	Weighted-Average Useful Life (Years)
Technology assets	**¥1,709**	**$16,122**	**8**
Customer-related assets	**33**	**311**	**9**

h. Supplemental cash flow information

The breakdown of assets and liabilities at the beginning of consolidation of WaferGen as the result of the acquisition of shares and reconciliation between cash paid for the shares of WaferGen and payment for the acquisition, net of cash and cash equivalents acquired, was as follows:

	Millions of Yen	Thousands of U.S. Dollars
Current assets	**¥ 525**	**$ 4,952**
Non-current assets	**2,630**	**24,811**
Goodwill	**2,550**	**24,056**
Current liabilities	**(928)**	**(8,754)**
Non-current liabilities	**(556)**	**(5,245)**
Cash paid for the shares	**¥4,221**	**$39,820**
Cash and cash equivalents of consolidated subsidiary	**(12)**	**(113)**
Payment for the acquisition of shares of WaferGen, net of cash and cash equivalents acquired	**¥4,208**	**$39,698**

i. Pro forma information (unaudited)

If this business combination had been completed as of January 1, 2017, the beginning of the current fiscal year, the effects on the consolidated statement of income for the year ended March 31, 2018, would be as follows:

	Millions of Yen	Thousands of U.S. Dollars
Sales	**¥60**	**$566**
Operating loss	**(838)**	**(7,905)**
Loss before income taxes	**(847)**	**(7,990)**
Net loss attributable to owners of the parent	**(847)**	**(7,990)**

	Yen	U.S. Dollars
Per share of common stock:		
Basic net loss	**¥(7.04)**	**$(0.06)**

Outline of the method of calculation for the effects above:

We estimated the approximate impact of the difference between the sales and profit loss information of the acquiree, calculated assuming that the business combination was completed as of the beginning of the fiscal year, and sales and profit and loss information of the acquiree included in the consolidated statement of income of the acquirer.

4 MARKETABLE AND INVESTMENT SECURITIES

Marketable and investment securities as of March 31, 2018 and 2017, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Current:			
Trust beneficiary rights	**¥ 2,000**	¥ 2,000	**$ 18,867**
Non-current:			
Nonmarketable equity securities	**¥ 2**	¥ 2	**$ 18**

The cost and aggregate fair values of marketable and investment securities at March 31, 2018 and 2017, were as follows:

	Millions of Yen			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
March 31, 2018				
Securities classified as:				
Held-to-maturity	**¥ 2,000**			**¥ 2,000**
March 31, 2017				
Securities classified as:				
Held-to-maturity	¥ 2,000			¥ 2,000

	Thousands of U.S. Dollars			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
March 31, 2018				
Securities classified as:				
Held-to-maturity	**$ 18,867**			**$ 18,867**

5 INVENTORIES

Inventories at March 31, 2018 and 2017, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Finished products and merchandise	**¥ 4,484**	¥ 4,032	**$ 42,301**
Work in process	**334**	459	**3,150**
Raw materials and supplies	**1,192**	970	**11,245**
Total	**¥ 6,011**	¥ 5,462	**$ 56,707**

6 LONG-LIVED ASSETS

Impairment Loss

The impairment losses of long-lived assets for the years ended March 31, 2018 and 2017, were as follows:

March 31, 2018		Millions of Yen				
		Asset Type and Impairment Loss				
Utilization	Location	Building and Structures	Machinery, Equipment and Vehicles	Tools, Furniture and Fixtures	Land	Total
Idle property (Land and R&D facilities)	Yokkaichi City, Mie Pref.	**¥ 151**	**¥ 24**	**¥ 1**	**¥ 269**	**¥ 446**
Total		**¥ 151**	**¥ 24**	**¥ 1**	**¥ 269**	**¥ 446**

March 31, 2017		Millions of Yen					
		Asset Type and Impairment Loss					
Utilization	Location	Building and Structures	Machinery, Equipment and Vehicles	Tools, Furniture and Fixtures	Land	Goodwill	Total
Property to be sold (Production facilities)	Otsu City, Shiga Pref.	¥ 131	¥ 5	¥ 9	¥ 1		¥ 148
Property to be sold (Employee dormitory)	Otsu City, Shiga Pref.	16		0	34		51
Idle property	Yokkaichi city, Mie Pref.				286		286
Goodwill						¥ 181	181
Total		¥ 148	¥ 5	¥ 9	¥ 322	¥ 181	¥ 667

March 31, 2018		Thousands of U.S. Dollars				
		Asset Type and Impairment Loss				
Utilization	Location	Building and Structures	Machinery, Equipment and Vehicles	Tools, Furniture and Fixtures	Land	Total
Idle property (Land and R&D facilities)	Yokkaichi City, Mie Pref.	**$ 1,424**	**$ 226**	**$ 9**	**$ 2,537**	**$ 4,207**
Total		**$ 1,424**	**$ 226**	**$ 9**	**$ 2,537**	**$ 4,207**

(1) Reason for recognizing impairment loss

In the fiscal year ended March 31, 2018, the Company recognized an impairment loss on idle assets that were not likely to be used in the future as of March 31, 2018.

In the fiscal year ended March 31, 2017, the Company recognized an impairment loss on property to be sold with net recoverable value less than its carrying value as of March 31, 2017 due to the resolution of the Board of Directors of the Company on December 15, 2016. Also, the Company recognized an impairment loss on idle assets that were not likely to be used in the future as of March 31, 2017. As for the goodwill, the performance of Takara Bio Europe AB ("TBEAB"), a subsidiary of the Company, has been below what was expected at the time of acquisition in recent years. Based on the decline in profitability of TBEAB, the Company recognized an impairment loss for the year ended March 31, 2017.

(2) Method of calculating recoverable amount

In the fiscal year ended March 31, 2018, the recoverable values of idle properties were measured at net selling price, which was based on the appraisal value of real estate or reasonable estimation of the value of the assets.

In the fiscal year ended March 31, 2017, the recoverable values of properties to be sold were measured at net selling price, which was based on the expected selling price. As for idle property, the recoverable values were measured at net selling price, which was based on the appraisal value of real estate or reasonable estimation of the value of the assets. As for goodwill, the recoverable amount was measured based on the value in use, and the discount rate used was 10.0%.

7 LONG-TERM DEBT

Long-term debt at March 31, 2017, consisted of the following:

	Millions of Yen
Loans principally from banks and the local government, due serially to 2022 with interest rates ranging from 0% to 1.75% in 2017:	
Collateralized	**¥ 102**
Unsecured	**27**
Obligation under finance leases	**0**
Total	**130**
Less current portion	**48**
Long-term debt, less current portion	**¥ 82**

8 RETIREMENT AND PENSION PLANS

The Company and certain foreign subsidiaries have severance payment plans for employees.

The Company and the subsidiaries have unfunded lump-sum severance payment plans, defined benefit pension plans, and defined contribution pension plans. Under the lump-sum payment plans, employees terminating their employment are entitled to certain lump-sum severance payments based on their rate of pay at the time of termination, length of service, and certain other factors. Under the defined benefit corporate pension plans, employees terminating their employment are entitled to certain lump-sum severance payments or pension payments based on their length of service and certain other factors. In most circumstances, if the termination is caused by retirement at the mandatory retirement age, employees are entitled to greater payments than in other cases.

Some subsidiaries apply the simplified method to calculate liabilities for retirement benefits and retirement benefit costs.

(1) The changes in defined benefit obligations for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Balance at beginning of year	**¥ 1,216**	¥ 1,008	**$ 11,471**
Current service cost	**103**	78	**971**
Interest cost	**4**	8	**37**
Actuarial losses	**0**	181	**0**
Benefits paid	**(36)**	(55)	**(339)**
Others	**8**	(4)	**75**
Balance at end of year	**¥ 1,297**	¥ 1,216	**$ 12,235**

(2) The changes in plan assets for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Balance at beginning of year	**¥ 635**	¥ 593	**$ 5,990**
Expected return on plan assets	**12**	10	**113**
Actuarial losses (gains)	**42**	(28)	**396**
Contributions from the employer	**62**	92	**584**
Benefits paid	**(25)**	(29)	**(235)**
Others	**5**	(3)	**47**
Balance at end of year	**¥ 733**	¥ 635	**$ 6,915**

(3) Reconciliation between the liability recorded in the consolidated balance sheet and the balances of defined benefit obligations and plan assets for the years ended March 31, 2018 and 2017, was as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Funded defined benefit obligations	**¥ 638**	¥ 595	**$ 6,018**
Plan assets	**(733)**	(635)	**(6,915)**
Total	**(94)**	(39)	**(886)**
Unfunded defined benefit obligations	**658**	622	**6,207**
Net liability arising from defined benefit obligations	**¥ 564**	¥ 582	**$ 5,320**

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Liability for retirement benefits	**¥ 659**	¥ 622	**$ 6,216**
Asset for retirement benefits	**(95)**	(40)	**(896)**
Net liability arising from defined benefit obligations	**¥ 564**	¥ 582	**$ 5,320**

(4) The components of net periodic benefit costs for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Service cost	**¥ 103**	¥ 78	**$ 971**
Interest cost	**4**	8	**37**
Expected return on plan assets	**(12)**	(10)	**(113)**
Recognized actuarial losses	**80**	63	**754**
Amortization of prior service cost	**(26)**	(26)	**(245)**
Net periodic benefit costs	**¥ 148**	¥ 113	**$ 1,396**

(5) Amounts recognized in other comprehensive income (before income tax effect) in respect of defined retirement benefit plans for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Prior service cost	**¥ (26)**	¥ (26)	**$ (245)**
Actuarial losses (gains)	**121**	(145)	**1,141**
Total	**¥ 95**	¥ (172)	**$ 896**

(6) Amounts recognized in accumulated other comprehensive income (before income tax effect) in respect of defined retirement benefit plans as of March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Unrecognized prior service cost	**¥ 80**	¥ 107	**$ 754**
Unrecognized actuarial gains	**(415)**	(537)	**(3,915)**
Total	**¥ (334)**	¥ (429)	**$ (3,150)**

(7) Plan assets

a. Components of plan assets

Plan assets as of March 31, 2018 and 2017, consisted of the following:

	2018	2017
Debt investments	**55%**	54%
General account of insurance company	**28**	28
Equity investments	**13**	14
Cash and cash equivalents	**2**	1
Others	**2**	3
Total	**100%**	100%

b. Method of determining the expected rate of return on plan assets

The expected rate of return on plan assets is determined considering the long-term rates of return which are expected currently and in the future from the various components of the plan assets.

(8) Assumptions used for the years ended March 31, 2018 and 2017, were set forth as follows:

	2018	2017
Discount rate:		
Defined benefit	**0.377%**	0.377%
Lump-sum pension distribution	**0.382%**	0.382%
Expected rate of return on plan assets	**2.000%**	2.000%
Average rate of increase in salary	**4.200%**	4.200%

(9) Contributions paid to the defined contribution pension plan were ¥134 million ($1,264 thousand) and ¥106 million for the years ended March 31, 2018 and 2017, respectively.

9 EQUITY

Japanese companies are subject to the Companies Act of Japan (the "Companies Act"). The significant provisions in the Companies Act that affect financial and accounting matters are summarized below:

(a) Dividends

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders' meeting. For companies that meet certain criteria including (1) having a Board of Directors, (2) having independent auditors, (3) having an Audit & Supervisory Board, and (4) the term of service of the directors being prescribed as one year rather than the normal two-year term by its articles of incorporation, the Board of Directors may declare dividends (except for dividends-in-kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation. However, the Company does not meet all the above criteria.

The Companies Act permits companies to distribute dividends-in-kind (non-cash assets) to shareholders subject to a certain limitation and additional requirements.

Semiannual interim dividends may also be paid once a year upon resolution by the Board of Directors if the articles of incorporation of the company so stipulate. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.

(b) Increases/Decreases and Transfer of Common Stock, Reserve, and Surplus

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus), depending on the equity account charged upon the payment of such dividends, until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts within equity under certain conditions upon resolution of the shareholders.

(c) Treasury Stock and Treasury Stock Acquisition Rights

The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock by resolution of the Board of Directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders, which is determined by a specific formula. Under the Companies Act, stock acquisition rights are presented as a separate component of equity. The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

10 RELATED PARTY DISCLOSURES

The Company is majority-owned by Takara Holdings Inc., which is listed on the first section of the Tokyo Stock Exchange.

11 R&D COSTS

R&D costs charged to income were ¥4,653 million ($43,896 thousand) and ¥4,101 million for the years ended March 31, 2018 and 2017, respectively.

12 INCOME TAXES

The Company and its domestic subsidiaries are subject to Japanese national and local income taxes, which, in the aggregate, resulted in a normal effective statutory tax rate of approximately 31.0% for each of the years ended March 31, 2018 and 2017. Foreign subsidiaries are subject to income taxes of the countries where they operate.

The tax effects of significant temporary differences and tax loss carryforwards, which resulted in deferred tax assets and liabilities at March 31, 2018 and 2017, are as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Deferred tax assets:			
Tax loss carryforwards	**¥ 1,320**	¥ 354	**$ 12,452**
Inventories	**125**	222	**1,179**
Impairment loss	**321**	334	**3,028**
Unrealized profit on sales of inventories	**299**	208	**2,820**
Reconciliation related to retirement benefits	**100**	128	**943**
Accrued bonuses	**76**	130	**716**
Retirement benefits	**68**	45	**641**
Depreciation	**42**	43	**396**
Expenses incurred upon acquisition	**204**	289	**1,924**
Research and development costs	**166**		**1,566**
Tax credit for research and development costs	**119**	18	**1,122**
Other	**240**	224	**2,264**
Less valuation allowance	**(1,045)**	(1,421)	**(9,858)**
Deferred tax assets	**¥ 2,039**	¥ 577	**$ 19,235**
Deferred tax liabilities:			
Intangible assets	**¥ 1,336**	¥ 238	**$ 12,603**
Undistributed profit of foreign subsidiaries	**169**	194	**1,594**
Other	**61**	75	**575**
Deferred tax liabilities	**¥ 1,567**	¥ 509	**$14,783**
Net deferred tax assets	**¥ 472**	¥ 68	**$ 4,452**

A reconciliation between the normal effective statutory tax rates and the actual effective tax rates reflected in the accompanying consolidated statement of income for the years ended March 31, 2018 and 2017, is as follows:

	2018	2017
Normal effective statutory tax rate in Japan	**31.0%**	31.0%
Expenses not deductible for income tax purposes	**1.2**	0.5
Per capita rate of local tax	**0.3**	0.4
Tax credit for research and development costs	**(2.8)**	(2.2)
Valuation allowance	**(8.7)**	12.2
Tax rate difference of subsidiaries	**(0.7)**	(1.2)
Elimination of unrealized profit on sales of inventories	**(3.2)**	1.4
Amortization of goodwill	**4.5**	1.8
Impairment loss of goodwill		2.0
Foreign withholding tax	**4.4**	5.0
Uncertainty in income taxes	**3.0**	(1.1)
Reconciliation of transfer pricing		0.5
Other, net	**1.4**	1.4
Actual effective tax rate	**30.4%**	51.7%

At March 31, 2018, certain subsidiaries of the Company have tax loss carryforwards aggregating approximately ¥4,858 million ($45,830 thousand) which are available to be offset against the taxable income of such subsidiaries in future years. A portion of these tax loss carryforwards, if not utilized, will expire as follows:

Years Ending March 31	Millions of Yen	Thousands of U.S. Dollars
2019	¥ 106	**$ 1,000**
2020	86	**811**
2021		
2022	55	**518**
2023	151	**1,424**
2024	37	**349**
2025	14	**132**
2026 and thereafter	3,893	**36,726**
Total	¥ 4,345	**$ 40,990**

13 LEASES

The Group leases certain machinery, computer equipment, and other assets.

Total rental expense for the years ended March 31, 2018 and 2017, was ¥578 million ($5,452 thousand) and ¥421 million, respectively.

The minimum rental commitments under noncancelable operating leases at March 31, 2018, were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Due within one year	¥ 208	$ 1,962
Due after one year	136	1,283
Total	¥ 344	$ 3,245

14 FINANCIAL INSTRUMENTS AND RELATED DISCLOSURES

(1) Group policy for financial instruments

Cash surpluses, if any, are invested in low-risk financial assets. Derivatives are used, not for speculative purposes, but to hedge foreign currency exchange rate risk associated with certain assets and liabilities denominated in foreign currencies.

(2) Nature and extent of risks arising from financial instruments

Receivables such as trade notes and trade accounts are exposed to customer credit risk. Although receivables in foreign currencies are exposed to the market risk of fluctuation in foreign currency exchange rates, the position, net of payables in foreign currencies, is hedged by using forward foreign currency contracts.

Marketable and investment securities, mainly held-to-maturity securities, are exposed to the issuer's credit risk.

Payment terms of payables, such as trade notes and trade accounts, are generally within three months. Although payables in foreign currencies are exposed to the market risk of fluctuation in foreign currency exchange rates, those risks are netted against the balance of receivables denominated in the same foreign currency and are hedged by foreign currency contracts as noted above.

Derivatives mainly include foreign currency forward contracts, nondeliverable forwards, and currency options which are used to hedge foreign exchange risk associated with certain assets and liabilities denominated in foreign currencies. Please see Note 15 for more details about derivatives.

(3) Risk management for financial instruments

Credit risk management

Credit risk is the risk of economic loss arising from a counterparty's failure to repay or service debt according to the contractual terms. The Group manages its credit risk from receivables on the basis of internal guidelines, which include the monitoring of payment terms and balances of major customers by each business administration department to identify the default risk of customers at an early stage. With respect to held-to-maturity financial investments, the Group manages exposure to credit risk by limiting investments to high credit rated bonds in accordance with its internal guidelines.

Market risk management (foreign exchange risk)

Foreign currency trade receivables and payables are exposed to market risk resulting from fluctuations in foreign currency exchange rates. Such foreign exchange risk is hedged principally by foreign currency forward contracts.

Derivative transactions are performed and managed with the approval of the prescribed authority based on the internal guidelines.

Liquidity risk management

Liquidity risk comprises the risk that the Group cannot meet its contractual obligations in full on their maturity dates. The Group manages its liquidity risk by holding adequate volumes of liquid assets, along with adequate financial planning by the corporate finance department.

(4) Fair values of financial instruments

Fair values of financial instruments are based on quoted prices in active markets. If a quoted price is not available, another rational valuation technique is used instead.

(a) Fair value of financial instruments

	Millions of Yen		
March 31, 2018	Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	**¥ 10,051**	**¥ 10,051**	
Time deposits	**7,485**	**7,485**	
Notes and accounts receivable–trade (**)	**7,988**	**7,988**	
Marketable securities	**2,000**	**2,000**	
Total	**¥ 27,526**	**¥ 27,526**	
Notes and accounts payable–trade	**¥ 1,875**	**¥ 1,875**	
Notes and accounts payable–construction and other	**1,900**	**1,900**	
Accrued income taxes	**431**	**431**	
Total	**¥ 4,207**	**¥ 4,207**	
Derivatives (*)	**¥ 0**	**¥ 0**	

	Millions of Yen		
March 31, 2017	Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	¥ 22,200	¥ 22,200	
Time deposits	5,877	5,877	
Notes and accounts receivable–trade (**)	7,425	7,425	
Marketable securities	2,000	2,000	
Total	¥ 37,503	¥ 37,503	
Notes and accounts payable–trade	¥ 1,944	¥ 1,944	
Current portion of long-term debt	48	48	¥ (0)
Notes and accounts payable–construction and other	2,054	2,054	
Accrued income taxes	375	375	
Long-term debt	82	85	(2)
Total	¥ 4,505	¥ 4,507	¥ (2)
Derivatives (*)	¥ (3)	¥ (3)	

	Thousands of U.S. Dollars		
March 31, 2018	Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	**$ 94,820**	**$ 94,820**	
Time deposits	**70,613**	**70,613**	
Notes and accounts receivable–trade (**)	**75,358**	**75,358**	
Marketable securities	**18,867**	**18,867**	
Total	**$ 259,679**	**$ 259,679**	
Notes and accounts payable–trade	**$ 17,688**	**$ 17,688**	
Notes and accounts payable–construction and other	**17,924**	**17,924**	
Accrued income taxes	**4,066**	**4,066**	
Total	**$ 39,688**	**$ 39,688**	
Derivatives (*)	**$ 0**	**$ 0**	

Notes: *Assets and liabilities arising from derivative transactions are shown at net value with amounts in parentheses representing the net liability position.
**Allowance for doubtful accounts is netted against notes and accounts receivable–trade.

Cash and cash equivalents, time deposits, and notes and accounts receivable–trade
The carrying values of cash and cash equivalents, time deposits, and notes and accounts receivable–trade approximate fair value because of their short maturities.

Marketable securities
The fair values of marketable securities are measured at the quoted price obtained from the financial institution for certain debt instruments. The carrying values of certificates of deposit approximate fair value because of their short maturities. Fair value information for marketable and investment securities by classification is included in Note 4.

Notes and accounts payable (trade and construction and other) and accrued income taxes
The carrying values of notes and accounts payable and accrued income taxes approximate fair value because of their short maturities.

Current portion of long-term debt and long-term debt
The fair values of current portion of long-term debt and long-term debt are determined by discounting the cash flows related to the debt at the Group's assumed corporate borrowing rate.

Derivatives
Fair value information for derivatives is included in Note 15.

(b) Carrying amount of financial instruments whose fair value cannot be reliably determined

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Nonmarketable equity securities	**¥ 2**	¥ 2	**$ 18**
Total	**¥ 2**	¥ 2	**$ 18**

Since nonmarketable equity securities do not have a quoted market price in an active market and their fair value cannot be reliably determined, they are excluded from disclosure of fair value.

(5) Maturity analysis for financial assets and securities with contractual maturities

	Millions of Yen			
March 31, 2018	Due in 1 Year or Less	Due after 1 Year through 5 Years	Due after 5 Years through 10 Years	Due after 10 Years
Cash and cash equivalents	**¥ 10,051**			
Time deposits	**7,485**			
Notes and accounts receivable–trade	**7,988**			
Marketable securities	**2,000**			
Total	**¥ 27,526**			

	Thousands of U.S. Dollars			
March 31, 2018	Due in 1 Year or Less	Due after 1 Year through 5 Years	Due after 5 Years through 10 Years	Due after 10 Years
Cash and cash equivalents	**$ 94,820**			
Time deposits	**70,613**			
Notes and accounts receivable–trade	**75,358**			
Marketable securities	**18,867**			
Total	**$ 259,679**			

15 DERIVATIVES

The Group enters into foreign currency forward contracts, nondeliverable forwards, and currency options to hedge foreign currency exchange rate risk associated with certain assets and liabilities denominated in foreign currencies.

All derivative transactions are entered into to hedge foreign currency exposures incorporated within the Group's business. Accordingly, market risk in these derivatives is basically offset by opposite movements in the value of hedged assets and liabilities.

Because the counterparties to these derivatives are limited to major international financial institutions, the Group does not anticipate any losses arising from credit risk.

Derivative transactions entered into by the Group have been made in accordance with internal policies of the finance department, which regulate the authorization, purposes, credit limit amount, evaluation of the counterparties, and reporting procedures.

Forward exchange contracted amounts which are assigned to associated assets or liabilities and are reflected on the balance sheet at year end, are not subject to the disclosure of market value information.

Derivative Transactions to Which Hedge Accounting Is Not Applied

		Millions of Yen			
At March 31, 2018		Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain (Loss)
Foreign currency forward contracts:					
Buying	USD	**¥ 86**		**¥ 0**	**¥ 0**
	GBP	**45**		**(0)**	**(0)**
	AUD	**0**		**(0)**	**(0)**
Selling	EUR	**131**		**0**	**0**
	GBP	**0**		**0**	**0**
Nondeliverable forward:					
Selling	KRW	**15**		**(0)**	**(0)**

		Millions of Yen			
At March 31, 2017		Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain (Loss)
Foreign currency forward contracts:					
Buying	USD	¥ 422		¥ (3)	¥ (3)
	GBP	22		0	0
	AUD	0		(0)	(0)
Selling	EUR	48		0	0
Nondeliverable forward:					
Selling	KRW	2		(0)	(0)
Currency option: (*)					
Selling and buying	KRW	28		(1)	(1)

		Thousands of U.S. Dollars			
At March 31, 2018		Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain (Loss)
Foreign currency forward contracts:					
Buying	USD	**$ 811**		**$ 0**	**$ 0**
	GBP	**424**		**(0)**	**(0)**
	AUD	**0**		**(0)**	**(0)**
Selling	EUR	**1,235**		**0**	**0**
	GBP	**0**		**0**	**0**
Nondeliverable forward:					
Selling	KRW	**141**		**(0)**	**(0)**

Note: *The currency option contracts are zero-cost option contracts. With respect to the zero-cost option contracts, the call option and put option are shown in aggregate as they are set in one contract.

Derivative Transactions to Which Hedge Accounting is Applied

		Millions of Yen			
At March 31, 2018		Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Foreign currency forward contracts:					
Buying	USD	**Payables**	**¥ 6**		**¥ (0)**

		Millions of Yen			
At March 31, 2017		Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Foreign currency forward contracts:					
Buying	EUR	Payables	¥ 3		¥ (0)
	USD	Payables	38		(0)

		Thousands of U.S. Dollars			
At March 31, 2018		Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Foreign currency forward contracts:					
Buying	USD	**Payables**	**$ 56**		**$ (0)**

The fair value of derivative transactions is measured at the quoted price obtained from the financial institution.

16 OTHER COMPREHENSIVE INCOME (LOSS)

The components of other comprehensive income (loss) for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Foreign currency translation adjustments:			
Adjustments arising during the year	**¥ 21**	¥ (1,091)	**$ 198**
Total	**¥ 21**	¥ (1,091)	**$ 198**
Defined retirement benefits plans:			
Adjustments arising during the year	**¥ 41**	¥ (209)	**$ 386**
Reclassification adjustments to profit	**53**	36	**500**
Amount before income tax effect	**95**	(172)	**896**
Total	**¥ 95**	¥ (172)	**$ 896**
Total other comprehensive income	**¥ 117**	¥ (1,264)	**$ 1,103**

17 NET INCOME PER SHARE

Reconciliation of the differences between basic net income per share ("EPS") for the years ended March 31, 2018 and 2017, is as follows:

	Millions of Yen	Thousands of Shares	Yen	U.S. Dollars
For the year ended March 31, 2018:	Net Income Attributable to Owners of the Parent	Weighted-Average Shares	EPS	
Basic EPS				
Net income available to common shareholders	**¥ 2,335**	**120,415**	**¥ 19.39**	**$ 0.18**
For the year ended March 31, 2017:				
Basic EPS				
Net income available to common shareholders	¥ 1,352	120,415	¥ 11.24	

Diluted net income per share is not disclosed because no dilutive securities are outstanding for the years ended March 31, 2018 and 2017.

18 SUBSEQUENT EVENTS

(Execution of Significant Agreement)

The Company has entered into an agreement with Otsuka Pharmaceutical Co., Ltd., (Otsuka) for domestic co-development and exclusive sales of NY-ESO-1·siTCR™ gene therapy products (TBI-1301, TBI-1301-A) and CD19·CAR gene therapy products (TBI-1501) as of April 9, 2018.

Under the agreement, both companies will aim cooperatively for the early manufacture and sales approval of two therapeutic products in Japan. The Company is responsible for manufacturing and quality control of the two therapeutic products, investigational products, while Otsuka is responsible for clinical trials, other clinical studies, regulatory submissions for manufacture and sales approval, and safety data collection of the products. After acquisition for manufacture and sales approval, the Company and Otsuka are exclusively responsible for manufacturing and selling in Japan, respectively. There are no limitations on the target indications in the agreement. Otsuka also holds a right of first refusal for nine Asian countries outside Japan.

The Company will receive certain upfront and milestone payments from Otsuka depending on the achievement of certain developments based on the execution of the agreement. The Company will supply Otsuka with the products under certain financial conditions. As for NY-ESO-1·siTCR™ gene therapy product, the Company will receive milestone payments upon the achievement of target sales in addition to the running royalty on net sales.

(Appropriations of Retained Earnings)

The following appropriation of retained earnings at March 31, 2018, was approved at the Company's shareholders' meeting held on June 22, 2018:

	Millions of Yen	Thousands of U.S. Dollars
Year-end cash dividends, ¥4.50 ($0.04) per share	**¥ 541**	**$ 5,103**

19 SEGMENT INFORMATION

Under ASBJ Statement No. 17, "Accounting Standard for Disclosures about Segments of an Enterprise and Related Information," and ASBJ Guidance No. 20, "Guidance on Accounting Standard for Disclosures about Segments of an Enterprise and Related Information," an entity is required to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria. Operating segments are components of an entity about which separate financial information is available and such information is evaluated regularly by the chief operating decision-maker in deciding how to allocate resources and in assessing performance. Generally, segment information is required to be reported on the same basis as is used internally for evaluating operating segment performance and deciding how to allocate resources to operating segments.

(1) Description of reportable segments

The Group's reportable segments are those for which separate financial information is available, and regular evaluation by the Company's management is being performed in order to decide how resources are allocated among the Group. As such, the Group's reportable segments consist of Bioindustry, Gene Therapy, and AgriBio segments.

The Bioindustry segment consists of the businesses for research reagents (for genetic engineering research, protein engineering research, cell biology research, and glycobiology research), research instruments and services.

The Gene Therapy segment consists of the businesses for gene therapy-related products and services.

The AgriBio segment consists of the businesses for mushrooms, technical training of mushroom cultivation, ashitaba (a unique celery-like vegetable of the Angelica family), Agar, health food, and cosmetics.

(2) Methods of measurement for the amounts of sales, profit (loss), assets, and other items for each reportable segment

The accounting policies of each reportable segment are consistent with those disclosed in Note 2, "Summary of Significant Accounting Policies."

Segment income in the segment information below is based on operating income. Amounts of inter-segment transactions are based on the prevailing market prices.

(3) Information about sales, profit (loss), assets, and other items

Millions of Yen

	2018					
	Bioindustry	Gene Therapy	AgriBio	Total	Reconciliations	Consolidated
Sales:						
Sales to external customers	**¥ 29,568**	**¥ 500**	**¥ 2,243**	**¥ 32,312**		**¥ 32,312**
Intersegment sales or transfers			**7**	**7**	**¥ (7)**	
Total	**¥ 29,568**	**¥ 500**	**¥ 2,251**	**¥ 32,320**	**¥ (7)**	**¥ 32,312**
Segment profit (loss)	**¥ 6,683**	**¥ (1,322)**	**¥ 107**	**¥ 5,467**	**¥ (1,912)**	**¥ 3,555**
Segment assets	**52,185**	**2,594**	**2,165**	**56,946**	**11,907**	**68,854**
Other:						
Depreciation	**2,049**	**300**	**90**	**2,441**	**127**	**2,568**
Amortization of goodwill	**489**			**489**		**489**
Increase in property, plant and equipment and intangible assets	**1,302**	**118**	**32**	**1,453**	**85**	**1,539**

Millions of Yen

	2017					
	Bioindustry	Gene Therapy	AgriBio	Total	Reconciliations	Consolidated
Sales:						
Sales to external customers	¥ 26,573	¥ 500	¥ 2,301	¥ 29,375		¥ 29,375
Intersegment sales or transfers			5	5	¥ (5)	
Total	¥ 26,573	¥ 500	¥ 2,307	¥ 29,380	¥ (5)	¥ 29,375
Segment profit (loss)	¥ 6,218	¥ (1,380)	¥ 104	¥ 4,942	¥ (1,739)	¥ 3,202
Segment assets	51,017	3,663	2,625	57,306	9,837	67,143
Other:						
Depreciation	1,165	331	101	1,598	123	1,722
Amortization of goodwill	162			162		162
Increase in property, plant and equipment and intangible assets	1,036	562	18	1,616	32	1,648

Thousands of U.S. Dollars

	2018					
	Bioindustry	Gene Therapy	AgriBio	Total	Reconciliations	Consolidated
Sales:						
Sales to external customers	**$ 278,943**	**$ 4,716**	**$ 21,160**	**$ 304,830**		**$ 304,830**
Intersegment sales or transfers			**66**	**66**	**$ (66)**	
Total	**$ 278,943**	**$ 4,716**	**$ 21,235**	**$ 304,905**	**$ (66)**	**$ 304,830**
Segment profit (loss)	**$ 63,047**	**$ (12,471)**	**$ 1,009**	**$ 51,575**	**$ (18,037)**	**$ 33,537**
Segment assets	**492,311**	**24,471**	**20,424**	**537,226**	**112,330**	**649,566**
Other:						
Depreciation	**19,330**	**2,830**	**849**	**23,028**	**1,198**	**24,226**
Amortization of goodwill	**4,613**			**4,613**		**4,613**
Increase in property, plant and equipment and intangible assets	**12,283**	**1,113**	**301**	**13,707**	**801**	**14,518**

Note: 1. Reconciliations of segment profit include unallocated operating expenses of ¥1,912 million($18,037 thousand) and ¥1,739 million for the years ended March 31, 2018 and 2017, respectively, consisting principally of fundamental R&D expenses and administrative expenses.

(4) Information about products and services is as follows:

	Millions of Yen				Thousands of U.S. Dollars			
	2018							
	Bioindustry	Gene Therapy	AgriBio	Total	Bioindustry	Gene Therapy	AgriBio	Total
Sales to external customers	**¥ 29,568**	**¥ 500**	**¥ 2,243**	**¥ 32,312**	**$ 278,943**	**$ 4,716**	**$ 21,160**	**$ 304,830**

	Millions of Yen			
	2017			
	Bioindustry	Gene Therapy	AgriBio	Total
Sales to external customers	¥ 26,573	¥ 500	¥ 2,301	¥ 29,375

(5) Information about geographical areas is as follows:

(a) Sales

Millions of Yen

2018						
Japan	USA	China	Other Asia	Europe	Other	Total
¥ 14,266	**¥ 7,240**	**¥ 5,524**	**¥ 1,754**	**¥ 3,257**	**¥ 268**	**¥ 32,312**

Millions of Yen

2017						
Japan	USA	China	Other Asia	Europe	Other	Total
¥ 14,561	¥ 6,063	¥ 4,754	¥ 1,406	¥ 2,336	¥ 253	¥ 29,375

Thousands of U.S. Dollars

2018						
Japan	USA	China	Other Asia	Europe	Other	Total
$ 134,584	**$ 68,301**	**$ 52,113**	**$ 16,547**	**$ 30,726**	**$ 2,528**	**$ 304,830**

(b) Property, plant and equipment

Millions of Yen

2018					
Japan	USA	China	Other Asia	Europe	Total
¥ 15,745	**¥ 421**	**¥ 2,068**	**¥ 220**	**¥ 78**	**¥ 18,534**

Millions of Yen

2017					
Japan	USA	China	Other Asia	Europe	Total
¥ 16,947	¥ 264	¥ 2,118	¥ 217	¥ 30	¥ 19,577

Thousands of U.S. Dollars

2018					
Japan	USA	China	Other Asia	Europe	Total
$ 148,537	**$ 3,971**	**$ 19,509**	**$ 2,075**	**$ 735**	**$ 174,849**

(6) Information about impairment losses

	Millions of Yen				
	2018				
	Bioindustry	Gene Therapy	AgriBio	Reconciliations	Consolidated
Impairment loss				**¥ 446**	**¥ 446**

	Millions of Yen				
	2017				
	Bioindustry	Gene Therapy	AgriBio	Reconciliations	Consolidated
Impairment loss	¥ 384			¥ 283	¥ 667

	Thousands of U.S. Dollars				
	2018				
	Bioindustry	Gene Therapy	AgriBio	Reconciliations	Consolidated
Impairment loss				**$ 4,207**	**$ 4,207**

Note: The amount of "Reconciliations" is impairment loss of corporate assets which does not belong to the reportable segments.

(7) Information about amortization of goodwill and goodwill at March 31, 2018 and 2017, is as follows.

Millions of Yen

	2018					
	Bioindustry	Gene Therapy	AgriBio	Total	Reconciliations	Consolidated
Amortization of goodwill	**¥ 489**			**¥ 489**		**¥ 489**
Goodwill at March 31, 2018	**8,259**			**8,259**		**8,259**

Millions of Yen

	2017					
	Bioindustry	Gene Therapy	AgriBio	Total	Reconciliations	Consolidated
Amortization of goodwill	¥ 162			¥ 162		¥ 162
Goodwill at March 31, 2017	1,213			1,213		1,213

Thousands of U.S. Dollars

	2018					
	Bioindustry	Gene Therapy	AgriBio	Total	Reconciliations	Consolidated
Amortization of goodwill	**$ 4,613**			**$ 4,613**		**$ 4,613**
Goodwill at March 31, 2018	**77,915**			**77,915**		**77,915**

Deloitte.

Deloitte Touche Tohmatsu LLC
Shijokarasuma FT Square
20, Naginataboko-cho
Karasuma-higashiiru, Shijo-dori
Shimogyo-ku, Kyoto 600-8008
Japan

Tel: +81 (75) 222 0181
Fax: +81 (75) 231 2703
www.deloitte.com/jp

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors and Shareholders of Takara Bio Inc.:

We have audited the accompanying consolidated balance sheet of Takara Bio Inc. and its consolidated subsidiaries as of March 31, 2018, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Takara Bio Inc. and its consolidated subsidiaries as of March 31, 2018, and the consolidated results of their operations and their cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

Our audit also comprehended the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made in accordance with the basis stated in Note 1 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of readers outside Japan.

Deloitte Touche Tohmatsu LLC

June 6, 2018

Investor Information As of March 31, 2018

Corporate Data

Trade Name
Takara Bio Inc.

Head Office
Nojihigashi 7-4-38, Kusatsu, Shiga 525-0058, Japan
Telephone: +81-77-565-6920
PR and IR Department: +81-77-565-6970

Established
April 1, 2002

Issued Capital
¥14,965,828,496

Number of Employees of Takara Bio Group
1,448

URL
www.takara-bio.com

Main Offices

Headquarters
Nojihigashi 7-4-38, Kusatsu, Shiga 525-0058, Japan

Kusatsu Office
Nojihigashi 7-2-62, Kusatsu, Shiga 525-0058, Japan

Eastern Japan Sales
Nihonbashi 2-15-10, Chuo-ku, Tokyo 103-8232, Japan

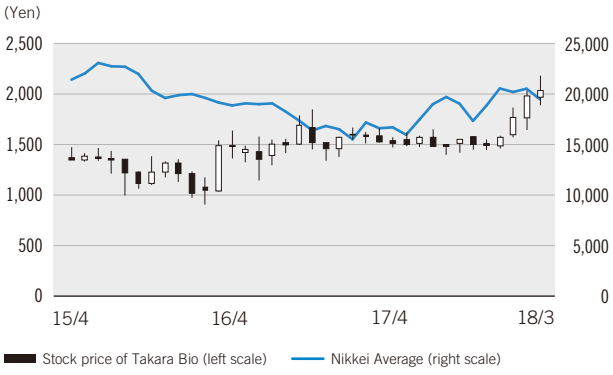
Consolidated Subsidiaries	Location	Issued Capital and Subscription	Line of Business
Takara Biotechnology (Dalian) Co., Ltd.	Dalian, People's Republic of China	¥2,350 million	Development and production of research reagents, and related contracted services
Takara Korea Biomedical Inc.	Seoul, Korea	₩3,860 million	Sale of research reagents and scientific instruments
Takara Biomedical Technology (Beijing) Co., Ltd.	Beijing, People's Republic of China	¥1,330 million	Sale of research reagents
DSS Takara Bio India Pvt. Ltd.	New Delhi, India	Rs.110 million	Production and sale of research reagents
Takara Bio USA Holdings Inc.	Mountain View, U.S.A.	$70,857 thousand	Subsidiary management
Takara Bio USA, Inc.	Mountain View, U.S.A.	$83 thousand	Development and sale of research reagents
Takara Bio Europe S.A.S.	Saint-Germain-en-Laye, France	EUR891 thousand	Sale of research reagents
Takara Bio Europe AB	Gothenburg, Sweden	2,222 thousand kronas	Development, production, sale of research reagents, and related contracted services
Mizuho Norin Co., Ltd.	Kyotamba-cho, Funai-gun, Kyoto, Japan	¥10 million	Production and sale of mushrooms
Takara Bio Farming Center Inc.	Yakushima-cho, Kumage-gun, Kagoshima, Japan	¥3 million	Production of Ashitaba and other agricultural products
KINOKO CENTER KIN INC.	Okinawa, Japan	¥5 million	Production and sale of mushrooms

Investor Information

CommosShares

Issued and Outstanding	400,000,000 shares
Number of Shareholders	120,415,600 shares
Total Number of Shareholders	42,513
Stock Listing	Takara Holdings Inc. (60.92% equity owned) First Section of Tokyo Stock Exchange (securities code number: 4974)
Fiscal year	From April 1 to March 31 of the following year
Annual Meeting of Shareholders	Every June
Record Date	The vote March 31 Dividends March 31 Interim dividends September 30 Other record date will be posted in advance if necessary
Share Unit Number	100 shares

Stock Price Range



TAKARA BIO INC.

Nojihigashi 7-4-38, Kusatsu, Shiga 525-0058, Japan
Telephone: +81-77-565-6920
www.takara-bio.com/index.html

Inquiries
PR and IR Department, Takara Bio Inc.
Telephone: +81-77-565-6970
E-mail: bio-ir@takara-bio.co.jp

Printed in Japan