## **TaKaRa**

# THE BIOTECHNOLOGY COMPANY™

Annual Report 2013



TAKARA BIO INC.

## Takara Bio Inc. contributes to the health of mankind through the development of revolutionary biotechnologies such as gene therapy.

Since its beginnings as the biomedical business part of Takara Shuzo Co., Ltd. (now, Takara Holdings Inc.), Takara Bio has developed biotechnology-related businesses. Takara Bio has three business segments: the **Genetic Engineering Research business**, the **AgriBio business** and the **Gene Medicine business**. Takara Bio Group strives to expand its core technologies, developed in the Genetic engineering research business, into the functional food area and further into the biomedical field.

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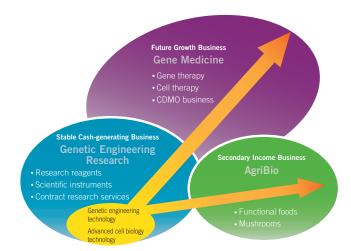
#### FORWARD-LOOKING STATEMENTS

Statements in this annual report, other than those based on historical fact, concerning the current plans, prospects, strategies, and expectations of Takara Bio Inc. ("the Company") and its consolidated subsidiaries ("the Group") represent forward-looking statements. As such statements are based on the conclusions made by management as of August 2013 based on information that includes major risks and uncertainties, actual results may vary significantly from the forecasts made due to various factors.

Factors that could influence actual results include, but are not limited to, economic conditions, especially trends in consumer spending, as well as exchange rate fluctuations, changes in regulatory and government systems, pressure from competitor price and product strategies, a decline in selling power of the Company's existing and new products, disruptions to production, violations of the Company's intellectual property rights, rapid advances in technology, and unfavorable verdicts in major litigation.

#### TAKARA BIO GROUP'S BUSINESS STRATEGY

In order to pursue continuous growth in the future, Takara Bio will invest the stable income generated by two business divisions (the **Genetic Engineering Research business** and the **AgriBio business**) in the **Gene Medicine business**, which is the Group's platform for future growth.



#### TAKARA BIO GROUP HIGHLIGHTS

#### 1979

Takara Shuzo Co., Ltd. (now, Takara Holdings Inc.), started the biomedical business launching restriction enzymes.

#### April 2002

Takara Bio was established as a result of corporate separation from Takara Shuzo.

#### December 2004

Takara Bio was listed on the Mothers section of the Tokyo Stock Exchange.

#### **BUSINESS OVERVIEW**

#### Stable Cash-generating Business

#### **Genetic Engineering Research**

Takara Bio develops and distributes research reagents and scientific instruments to biotechnology researchers around the world. It also provides contract research services.

#### History

- 1979 Commenced sales of the first Japanese-made restriction enzymes (total of six products)
- 1988 Acquired an exclusive distribution right in Japan for a gene amplification system using the PCR technology
- 1993 Commenced sales of Takara Bio branded PCR products
- 2005 Acquired Clontech Laboratories, Inc. of the United States

#### Products and services

- Research reagents (gene amplification reagents, gene expression reagents, protein expression reagents, and antibodies, etc.)
- Scientific instruments (gene amplification machines and mass spectrometry systems, etc.)
- Contract research services (genome sequencing analysis, DNA chip analysis, and iPS cell contract production services, etc.)

#### Strengths

- The strong brand image for Takara products established in Asia and for the Clontech brand in Europe and in the United States
- An extensive lineup of Takara and Clontech branded products
- Price competitiveness through production in China
- · New product and service development capabilities
- · A worldwide sales network

#### Secondary Income Business

#### **AgriBio**

Takara Bio produces and sells functional foods whose functionality has been proven through the use of biotechnology. The Company also operates a mushroom business that utilizes large-scale production technologies.

#### History

- 1970 Developed the world's first large-scale production technology for Bunashimeji mushrooms
- 1996 Confirmed scientifically the effectiveness of "Fucoidan," derived from Gagome kombu (kelp), and began marketing the functional food product named Apoidan-U
- 2004 Commenced production of Honshimeji mushrooms

#### Products and services

- Functional foods (Gagome kombu (kelp) "Fucoidan," and "Isosamidin" from herbs, etc.)
- Mushrooms (Honshimeji, Hatakeshimeji, and Bunashimeji)

#### Strengths

- Technologies for the large-scale production of mushrooms (Honshimeji, Hatakeshimeji, and Bunashimeji)
- Decades of expertise in the research and development of functional foods with the accumulated evidence-based research data
- Co-operation with Takara Healthcare for sales and marketing of functional foods

#### **Future Growth Business**

#### Gene Medicine

Takara Bio actively conducts clinical development projects aiming to commercialize cell and gene therapies with its core technologies of a highly efficient gene transduction method and a lymphocyte expansion culture system, both of which use the RetroNectin® reagent.

#### History

- 1995 Developed a highly efficient retroviral transduction method for hematopoietic stem cells (the RetroNectin® method)
- 2003 Acquired a license from MolMed for HSV-TK gene therapy technologies for leukemia
- 2008 Conducted the first ex vivo gene therapy clinical trial in Japan (HSV-TK gene therapy)
- 2010 Acquired HF10 oncolytic virus business from M's Science
- 2012 Initiated a Phase I clinical trial of MazF gene therapy for HIV infections in the U.S.

#### Products and services

- Cell culture media and gas-permeable bags for cell therapy
- Technical support services for cancer immunotherapy
- Contract development and manufacturing organization (CDMO) business (contract production of GMP-grade vectors, and safety testing services)
- GMP (Good Manufacturing Practice) grade RetroNectin® reagent
- Licensing of gene medicine technology and patents

#### .

- The RetroNectin® method, which has become a standard technology for gene transduction using retrovirus vectors (more than 300 patients over the world have been treated with this RetroNectin® method)
- $\bullet~$  The RetroNectin® expansion-culture system available commercially for cell therapy
- Production capability compliant with GMP standards for vectors and gene modified cells
- Expertise related to clinical development of gene therapy products



## Takara Bio group

Net sales by business segment (Year ended March 31, 2013)

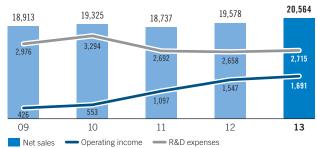


Genetic Engineering Research 82.7%

AgriBio 11.3%

Gene Medicine 6.0%

## Net sales / Operating income / R&D expenses (Millions of Yen)



### Sales by geographic segment (Year ended March 31, 2013)



Japan 60.9%

**United States** 

14.2%

China 13.7%

13.7%

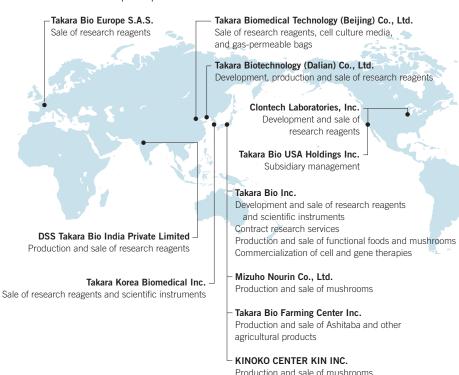
Europe 6.0%

Asia excluding China

4.5%

**Other** 0.7%

#### Takara Bio Group Companies



#### TAKARA BIO'S GLOBAL STRATEGY

#### Sales Network

Takara Bio and Clontech branded products are marketed through local subsidiaries in the United States, France, China, South Korea, and India. In the fiscal year ended March 31, 2013, 41.7% of the total revenue in the Genetic engineering research business was generated from outside Japan.

#### **Production**

The research reagents of Takara Bio and Clontech are produced mainly in China. Approximately 500 employees at Takara Biotechnology (Dalian) Co., Ltd., efficiently produce several thousand different research reagents under a well-organized quality management system. DSS Takara Bio India Private Limited also manufactures research reagents for the Indian market.

#### **Research and Development**

In order to keep up with the latest cutting-edge biotechnologies and launch new and innovative products into the market, the Takara Bio Group actively works not only to develop its own technologies, but also to take in early stage new technologies from other third parties that can be developed into new products. Three subsidiaries; Takara Bio in Japan, Clontech in the U.S. and Takara Biotechnology (Dalian) in China, have been collaborating closely and effectively as Takara Bio's R&D centers to develop new products and technologies.

## Genetic Engineering Research

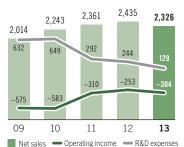
#### AgriBio

#### Gene Medicine

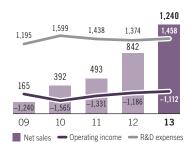
Net sales / Operating income / R&D expenses (Millions of Yen)



Net sales / Operating income / R&D expenses (Millions of Yen)



Net sales / Operating income / R&D expenses (Millions of Yen)



Net sales

¥16,997 million

Operating income

¥4,831 million

Net sales

¥2,326 million

Operating income

¥-304 million

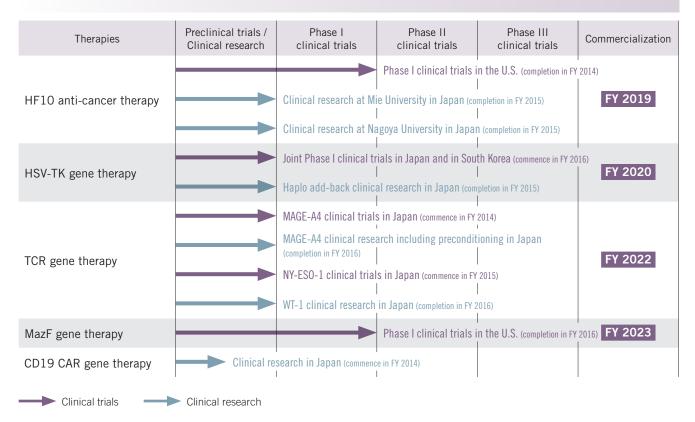
Net sales

¥1,240 million

Operating income

¥-1,112 million

### Schedule for Clinical Development of Gene Therapy Projects





Based on the Company's mission of "contributing to the health of humankind through the development of revolutionary biotechnologies such as gene therapy," we will invest earnings generated by the Genetic engineering research business and the AgriBio business in the development of the Gene medicine business, so as to raise corporate value. Having businesses that generate stable earnings as well as businesses with the potential to grow rapidly is one of the Takara Bio Group's key advantages. Utilizing such strengths, I pledge to devote my energies to realizing a high-paced and dynamic business management approach that will benefit all of our stakeholders.

August 2013
President & CEO

Koidi Nalao

#### Q. What does Takara Bio's current operating environment look like?

# A. The Japanese government is instituting a wide range of measures to support development in the regenerative medicine and cell therapy fields. I believe this will create a favorable environment for Takara Bio's business.

The amount of government funding in Japan available for conducing basic research and clinical development related to regenerative medicine and cell therapy is set to increase substantially. In addition, the National Diet and related ministries are currently undertaking deliberations in order to accelerate the development of leading-edge medical technologies. Among the measures that have been brought to the table for discussion are a quick approval system for new drugs in advanced medical fields, outsourcing of cell processing, and the development of a framework for guaranteeing safety of such advanced medical technologies in light of their inherent risks.

Our main business is to provide products, services, and technologies to support organizations conducting basic and clinical research. Accordingly, I believe that such government measures for accelerating the development of leading-edge medical technologies as well as the rise in government research grants for development in these fields will create a favorable business environment for us. We also possess technologies for manufacturing clinical grade gene modified cells in accordance with GMP (Good Manufacturing Practices) and are providing technical support services (cell cultivation and processing) for medical institutions practicing cancer immunotherapy. These capabilities mean that significant business opportunities will be created for us should the outsourcing of cell processing be instituted. Further, if the quick approval system for new drugs becomes applicable to cell and gene therapy treatments, then we may be able to shorten the time required to commercialize our clinical development projects.

#### **Financial Highlights**

**Net Sales** 

**¥20,564** million

**†** 5.0%

Operating Income

¥1,691 million

**†** 9.3%

Net Income

¥1,462 million

**†** 43.0%

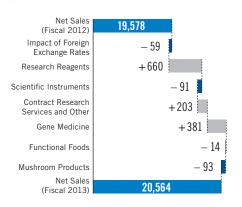
#### Q. How was business performance in fiscal 2013?

## A. We renewed the highest records operating income and net income that were achieved in fiscal 2012.

In the Genetic engineering research business, sales of research reagents showed year-on-year increases in Japan, China, India, and other regions. Sales of cell culture media and gas-permeable bags in China in our Gene medicine business also proved favorable. Driven by these facts, net sales amounted to ¥20,564 million, up ¥985 million, or 5.0%, compared to those in the previous fiscal year. Gross profit grew by ¥640 million, or 6.2%, to ¥11,024 million. Selling, general and administrative (SG&A) expenses rose by ¥496 million, or 5.6%, to ¥9,332 million, owing to increases in personnel expenses and R&D expenses. Operating income increased by ¥144 million, or 9.3%, to ¥1,691 million. Net income grew by ¥439 million, or 43.0%, to ¥1,462 million.

#### CONSOLIDATED NET SALES

(Millions of Yen)



### CONSOLIDATED OPERATING INCOME (Millions of Yen)

 Operating Income (Fiscal 2012)
 1,547

 Genetic Engineering Research
 +384

 Gene Medicine
 +73

 AgriBio
 -51

 Reconciliation
 -263

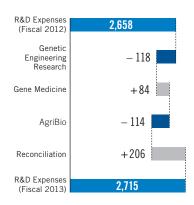
1,691

Operating Income

(Fiscal 2013)

#### **R&D EXPENSES**

(Millions of Yen)



- Q. Would you explain your thoughts on the profit allocation policy?
- A. Recognizing returning profits to shareholders as a management priority, we awarded a year-end dividend of ¥1.10 per share for fiscal 2013.

Takara Bio believes that, in addition to securing sufficient internal reserves to enable the aggressive pursuit of investment in research and development activities in the Genetic engineering research, Gene medicine, and AgriBio businesses, returning profits to shareholders is a management priority. Accordingly, our fundamental policy is to distribute around 10% of estimated net income, excluding net extraordinary items in the consolidated financial statements, taking management performance and our financial condition into consideration.

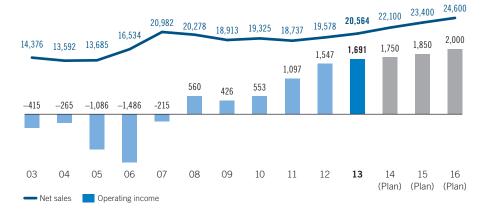
In accordance with this policy, for fiscal 2013 we distributed a year-end dividend of \$1.10 per share. While we had initially forecast a year-end dividend of \$1 per share, we chose to raise dividends by \$0.10 per share in reflection of higher-than-forecast net income. We also forecast a \$1.10 per share year-end dividend for fiscal 2014.

- Q. Would you please explain the three-year medium-term management plan that will commence in fiscal 2014?
- A. Under the new medium-term management plan, we will target an annual growth rate of approximately 5% for net sales, and work to rewrite our record for operating income every year by increasing net sales in order to offset the growing R&D expenses associated with the progress of cell and gene therapy clinical projects.

In our Genetic engineering research business, we are targeting year-on-year increases in overall sales of approximately 8% during fiscal 2014. In this business, by introducing new research reagents and other innovative products, we will focus on the business fields of regenerative medicine, cell therapy, and next-generation sequencing. Through these efforts, we aim to achieve an annual growth rate of approximately 4% in sales in this business and growth of ¥500 million in operating income per year in fiscal 2015 and onward.

In the Gene medicine business, we will target an annual growth rate of approximately 15% for sales in the Gene medicine business, primarily driven by introducing new products developed through our technologies acquired in cell and gene therapy clinical development, in order to increase sales of cell culture media and gas-permeable bags in the growing market in China. In Japan, where the government strongly supports clinical development geared toward bringing regenerative medicine and cell therapy treatments to practical application, we will work to expand our contract development and manufacturing organization (CDMO) business, which involves

## SALES AND OPERATING INCOME (Millions of Yen)



supporting the development of biopharmaceuticals as a contract producer, or as an R&D partner, of GMP-grade vectors for iPS cell production.

In the AgriBio business, we aim to achieve profitability during fiscal 2015, primarily driven by bolstering production of high-value-added Honshimeji mushrooms at Mizuho Nourin Co., Ltd., while scaling back production of Hatakeshimeji mushrooms. We will also work to expand sales in the B-to-B market by accumulating data for health-oriented food ingredients through basic and clinical research. At the same time, we will target sales increases for functional food products by offering mail-order sales through collaboration with Takara Healthcare Inc.

#### Q. How are cell and gene therapy clinical development projects progressing?

## A. We plan to have five trials underway in Japan and the United States by fiscal 2016, expanding our pipelines for clinical trials.

Phase I clinical trials of two projects are currently underway in the United States – one examining the efficacy of HF10 in treating solid tumors and second examining the efficacy of MazF gene therapy in treating HIV. Future planned trials to be conducted in Japan include a trial regarding the treatment of esophageal cancer and other solid tumors through MAGE-A4 antigen-specific T-cell receptor (TCR) gene therapy, which is scheduled to commence in fiscal 2014; a trial on the treatment of solid tumors through NY-ESO-1 antigen-specific TCR gene therapy, scheduled to commence in fiscal 2015; and a trial on the treatment of hematopoietic malignancy through HSV-TK gene therapy, scheduled to commence in fiscal 2016. Commercialization of these clinical development projects is scheduled to begin with HF10 in fiscal 2019. By commercializing these and other gene therapy treatments in the United States and Japan, we aim to provide new treatment methods for cancer, AIDS, and other intractable diseases.

#### ACTUAL RESULT IN FISCAL 2013 AND MEDIUM-TERM MANAGEMENT PLANS

(Millions of Yen)	FY 2013 (Actual)	FY 2014 (Budget)	FY 2015 (Plan)	FY 2016 (Plan)
Target				
Net sales	20,564	22,100	23,400	24,600
Genetic Engineering Research	16,997	18,340	19,158	20,084
AgriBio	2,326	2,325	2,543	2,563
Gene Medicine	1,240	1,434	1,698	1,952
Operating income (loss)	1,691	1,750	1,850	2,000
Genetic Engineering Research	4,831	4,971	5,432	5,935
AgriBio	(304)	(219)	18	121
Gene Medicine	(1,112)	(1,424)	(1,740)	(2,054)
Ordinary income	1,965	2,000	2,050	2,200
Net income	1,462	1,300	1,330	1,430
R&D expenses	2,715	3,258	3,620	4,049
R&D expenses /				
Net sales ratio (%)	13.2%	14.7%	15.5%	16.5%

## Genetic Engineering Research



Takara Bio supports biotechnology research worldwide, from basic research at academic institutions to commercial entities working in drug-discovery research. Since the introduction of the first domestically produced restriction enzymes in 1979, Takara Bio has continuously developed its research reagents, scientific instruments, and contract research services with new genetic engineering technologies.

#### **BUSINESS LINE**

#### Research Reagents

- PCR enzymes
- Cloning systems
- Viral vectors
- iPS cell production kit
- Reagents for next-generation sequencing

#### Scientific Instruments

- PCR-related equipments
- Mass spectrometry systems

#### Contract Research Services

- Next-generation sequencing analysis
- Epigenetic analysis
- Gene expression analysis
- Custom production services for iPS cells

## The second section is a second second

Real-time PCR equipment



Research reagents



Clontech's research reagents

## RESEARCH REAGENTS AND SCIENTIFIC INSTRUMENTS

R&D activities in biotechnology are performed at both academic institutions, such as universities, and private enterprises, such as pharmaceutical companies, in a variety of areas. These include functional analysis of genes as well as the unraveling of biological phenomena and mechanisms of disease at the molecular level in living organisms. The role of our Genetic engineering research business is to support such life science research activities worldwide.

In 1988, Takara Bio became the first company in Japan to introduce a gene amplification system using the PCR method; and in 1993, Takara Bio obtained a license for the PCR method to produce its own PCR-related products. The PCR method is an essential technology for biotechnology research, which enables the amplification of very small amounts of genes from biological samples. Takara Bio has developed high-performance PCR enzymes and real-time PCR equipments that meet market demand. Takara Bio enjoys a high reputation as one of

the most well-established companies in the Asian PCR reagent market.

In September 2005, Takara Bio acquired Clontech Laboratories, Inc. Whereas Takara Bio's strength lies in the field of genetic engineering, including enzymes for genetic engineering and PCR-related technologies, Clontech is strong in the field of cell biology, including systems for viral gene delivery, as well as systems for the regulated gene expression. Combining Clontech products with Takara Bio products has greatly expanded the product lineup of research reagents.

As for production, the majority of the Company's research reagents are produced by Takara Biotechnology (Dalian), established as a manufacturing facility in China in 1993. This enables Takara Bio to maintain a high level of cost competitiveness.

Takara Bio markets its products in North America and Europe through two subsidiaries: Clontech in the United States and Takara Bio Europe S.A.S. in France, respectively. At the same time, Takara Bio pursues the growth in the rapidly expanding markets of emerging countries. In China, Takara Biotechnology (Dalian) markets research reagents,

and sales in this market continue to grow steadily. In India, DSS Takara Bio India, established in 2011, has spent more resources in promoting the products in the Indian market.

Takara Bio will also continue to distribute within Japan and overseas the products of other companies that are technologically complementary, aiming to expand sales by offering products and services from such companies as Immuno-Biological Laboratories Co., Ltd., Macherey-Nagel GmbH & Co. KG, Morinaga Institute of Biological Science, Inc., and Exigon A/S.

R&D activities are shared efficiently among Takara Bio, Clontech, and Takara Biotechnology (Dalian). These R&D initiatives focus on developing products both in the stem cell field, a market likely to grow going forward, and the genetic engineering field, an area in which Takara Bio boasts particular competence. In the genetic engineering field, Takara Bio aims for sales growth by expanding the application of PCRrelated technology for industrial use (Applied fields) and by developing new products related to real-time PCR, which is considered to be a growing market. In the stem cell field, new products relating to epigenetics and iPS cells are to be developed, the fields of which are expected to actively grow.

The products developed by Takara Bio and Clontech are manufactured by Takara Biotechnology (Dalian) and marketed not only in Japan but worldwide through the global distribution network of Group subsidiaries in Europe, the United States, China, South Korea, and India. Based on this strategy, Takara Bio aims to build a strong presence in the global marketplace.

#### **CONTRACT RESEARCH SERVICES**

Takara Bio also runs a contract research services business through which the Company conducts data analysis and performs research for academia and commercial entities on a contractual basis. One of Asian largest genome analysis centers, the Dragon Genomics Center, was established in 2000 having successfully completed several large genome analysis contracts. The core facility of the contract research services business offers not only general research services, such as genome sequence analysis, gene expression analysis using DNA microarray, small RNA analysis, and protein expression analysis, but also state-of the-art research services, such as high-throughput sequencing analysis using next-generation sequencers and contract production services for iPS cells.

A broad range of leading-edge analysis applications, including human genome analysis and epigenetic analysis, are available for genetic analysis services using next-generation sequencers, which has been prevailing in recent years. Also, Takara Bio has invested in bioinformatics for data processing so as to provide high-value-added services—next-generation data mining services—which extract useful information from the extremely large amounts of data produced by next-generation sequencing analysis.

Takara Bio will continue to offer innovative new services, keeping up with rapid technological innovation in biotechnology research.



Next-generation sequencing system



Dragon Genomics Center server

#### **FUTURE MEASURES**

- Development of products in the field of regenerative medicine
- Development of the Applied fields market for PCR (food product analysis, environmental analysis, and molecular diagnostics), by enhancing the development of new products and proactive development of customized products in Asia
- Development of next-generation sequencing-related technologies to grow the contract service business focused on whole human genome sequence analysis and miRNA analysis
- Enhancement of the product development capability of entire Takara Bio group by improving the efficiency of Research and Development
- Enhancement of the Company's global marketing and sales organization
- Establishment of commercial production for enzymes in India
- Pursuing new business alliances with companies that have technologically complementary products in order to expand in-licensed products

## AgriBio



Takara Bio develops functional food products that were identified with its biotechnology from traditional Japanese foodstuffs.

Takara Bio also takes advantage of its large-scale production technology of mushrooms in order to commercially produce Hatakeshimeji and Honshimeji mushrooms.

#### **BUSINESS LINE**

**Functional Food Business** 

- Gagome kombu (kelp) "Fucoidan"
- Herb (Peucedanum japonicum) "Isosamidin"
- Ashitaba (angelica herb) "Chalcone"
- · Agar-derived "Agaro-oligosaccharide"
- Yam (*Dioscorea esculenta*) "Yamsgenin™"
- Mushroom "Terpene"

#### Mushroom Business

- Honshimeji mushrooms
- Hatakeshimeji mushrooms
- Bunashimeji mushrooms



Fucoidan Supplement 50



Fucoidan Capsules



Fucoidan Drink

#### **FUNCTIONAL FOOD BUSINESS**

Takara Bio has been researching the functional properties derived from Japanese traditional food materials such as, Gagome kombu (kelp) "Fucoidan," the herb (*Peucedanum japonicum*) "Isosamidin," Ashitaba (angelica herb) "Chalcone," Agar-derived "Agaro-oligosaccharide," Yam (*Dioscorea esculenta*) "Yamsgenin™," and mushroom "Terpene." The Company has been developing functional food products featuring these unique properties.

Takara Healthcare Inc., a wholly owned subsidiary of Takara Holdings Inc., provides these products through an online ordering and telephone sales network. Takara Healthcare also provides these unique functional products as raw materials to food, beverage, and cosmetic manufactures.

#### 1. Gagome Kombu (Kelp) "Fucoidan"

Fucoidan is a polysaccharide with a thick consistency that is found mainly in various species of brown kelp, including kombu. It is known that fucoidan enables seaweed to "self-repair" when it becomes damaged. Fucoidan also provides a barrier against harmful bacteria and protects against dryness. Takara Bio spent many years researching Gagome kombu (kelp), a particularly sticky type of kombu, and consequently three different types of chemical structures of Fucoidan

in Gagome kombu (kelp) were successfully identified for the first time in the world. Moreover, Takara Bio continues research on the functional mechanism of Gagome kombu (kelp) "Fucoidan."

## 2. Herb (*Peucedanum japonicum*) "Isosamidin"

Peucedanum japonicum is a perennial plant in the Apiaceae (Umbelliferae) family that grows naturally along the coast, mainly from southern Kyushu to Okinawa. In Japanese, it is called "Botanbofu." It is also often called the "herb of long life," which derives from the local folklore saying; "If you eat one sprig of Botanbofu, you will live one day longer." Takara Bio has focused its research on the herb's intense vitality, particularly, the properties of a constituent compound called Isosamidin.

#### 3. Agar-derived "Agaro-oligosaccharide"

Agar, which is made from red algae such as tengusa and ogonori, has been one of the popular traditional Japanese food known as the "king of dietary fibers." Takara Bio is not only interested in the dietary fiber properties of agar, but has also focused on Agaro-oligosaccharides, which are obtained by heating agar in acid. An original method for industrial manufacturing agar-derived "Agaro-oligosaccharides" has been already developed by the Company. Moreover, unique

functional properties of Agaro-oligosaccharides have been identified, which are not found in other oligosaccharides.

#### 4. Ashitaba (Angelica Herb) "Chalcone"

Ashitaba is indigenous to Japan that grows wild on the Pacific coast, mainly in the Izu Islands. Ashitaba is known for its strong vitality as indicated by the Japanese saying; "If Ashitaba leaves are picked today, new leaves will be in place by tomorrow." Ashitaba is rich in vitamins, minerals, and dietary fiber, many of which are important nutrients for both health and beauty. Taking special care over every aspect of cultivation, for example, soil preparation, Takara Bio produces Ashitaba on its own farms and contracted farms in Kagoshima Prefecture. Takara Bio is pursuing R&D activities into the function of Chalcone, a polyphenol peculiar to Ashitaba.

#### 5. Yam (Dioscorea esculenta) "Yamsgenin™"

Long known as a healthy food with tonic-like properties, yams are referred to as "Sanyaku" in traditional Chinese medicine. Takara Bio researched the properties of the *Dioscorea esculenta*, a type of yam cultivated in Okinawa, discovering Yamsgenin $^{TM}$ , a substance found in the *D. esculenta* yam, but not found in ordinary yams. Takara Bio continues to conduct research on the properties of the Yamsgenin $^{TM}$ .

#### 6. Mushroom "Terpene"

"Terpene" is the generic name for substances based on isoprene structure that are found widely in nature. For example, lycopene, a health-promoting constituent of tomatoes, is a "terpene." Takara Bio's research focuses on the properties of mushroom "terpene," which is one of the compounds present in Bunashimeji mushrooms (*Hypsizigus marmoreus*).

#### **MUSHROOM BUSINESS**

Takara Bio developed new species of mushrooms as well as methods for the cultivation and mass production of mushrooms. Takara Bio was the first company to successfully develop the largescale production of Bunashimeji mushrooms, which are widely available at most Japanese food retailers. In 1973, the large-scale production technology was licensed to JA ZEN-NOH (National Federation of Agricultural Cooperative Associations) Nagano, which lead to success in the commercialization of this mushroom. This marked the start of Takara Bio's mushroom business. Since then, Takara Bio has tried to develop industrial, large-scale production methods for various mushrooms with higher added value.

Today, Mizuho Nourin Co., Ltd., a joint venture between Takara Bio as well as Kyotamba-cho and the Kyotamba Forestry Association, both of which are in Kyoto Prefecture, is conducting industrial production of Hatakeshimeji mushrooms. This company produced 1,470 tons of these mushrooms in fiscal 2013.

Honshimeji mushrooms are known for their exquisite taste—as the Japanese saying goes; "Matsutake for aroma, Shimeji for taste." Takara Bio has been mass producing Honshimeji mushrooms since 2004 at the Kusu Factory in Yokkaichi, Mie Prefecture. Takara Bio produced 160 tons of Honshimeji mushrooms in fiscal 2013, occupying over 90% of the market.

In order to improve revenues in the mushroom business, Takara Bio will substantially increase production of high-value-added Honshimeji mushrooms at upgraded facilities in Mizuho Nourin. In fiscal 2014, production of Hatakeshimeji mushrooms will be reduced to less than half of fiscal 2013, and production of Honshimeji mushrooms will be doubled.

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Hatakeshimeji mushrooms



Honshimeji mushrooms

#### **FUTURE MEASURES**

- Strengthening scientific evidence for health-oriented food ingredients through human interventional studies so as to increase sales in the B-to-B market
- Collaboration with medical research institutes aiming to acquire basic and clinical data using healthoriented food ingredients
- Implementation of better quality control assurance systems in order to ensure the provision of safe and reliable products
- Improvement of the profitability by shifting production capacity at Mizuho Nourin Co., Ltd., from Hatakeshimeji mushrooms to Honshimeji mushrooms
- Expansion of the licensing business for mushroom-production technology

### Gene Medicine



In the Gene medicine business, Takara Bio is developing state-of-the-art gene therapy technologies with the aim of commercialization, using the technologies and know-how accumulated through its genetic engineering research. In addition to licensing its core technologies, Takara Bio is advancing the clinical development of cell and gene therapies for AIDS, cancer, and other diseases.

#### **BUSINESS LINE**

Clinical Development of Gene Therapy

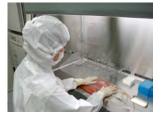
- HF10 anti-cancer therapy
- HSV-TK gene therapy
- MazF gene therapy
- TCR gene therapy (MAGE-A4, NY-ESO-1)

Cell Therapy

- Technical support services for cancer immunotherapy
- Sale of cell culture media and gas-permeable bags

Contract Development and Manufacturing Organization (CDMO) Business

- Production of GMP-grade vectors for gene therapy
- Safety testing services for biopharmaceuticals
- Development of manufacturing processes and testing methods for cells used in the regenerative medicine field



Cell culture

#### CORE TECHNOLOGIES FOR GENE MEDICINE

Takara Bio's first core technology for gene medicine is an efficient retroviral transduction method—the RetroNectin® method—that was developed in collaboration with Indiana University in the United States. Takara Bio holds exclusive rights for worldwide applications of this powerful technology, which enables efficient transduction of genes into hematopoietic stem cells as well as lymphocytes and other blood cells. This technology is now recognized as a standard gene transduction method in *ex vivo* gene therapy. It has been utilized for over 60 gene therapy clinical studies and has been licensed to six companies around the world.

Takara Bio's second core technology is a lymphocyte expansion-culture system that uses the RetroNectin® reagent (the RetroNectin® expansion-culture system). This system can be used for proliferating lymphocytes both in cell and gene therapies. During the expansion culture of human lymphocytes in the presence of interleukin-2 and anti-CD3 monoclonal antibody, the RetroNectin® reagent helps to increase proportion

of naïve T cells that have a significant *in vivo* persistence and strong antigen recognition.

The third core technology is a production technology for clinical grade (GMP-compliant) vectors and gene modified cells. Further, as the only company in Japan to experience clinical trials for *ex vivo* gene therapy, expertise related to clinical development of gene therapies will be a unique selling point to promote the CDMO business.

#### **GENE THERAPIES**

Takara Bio advances clinical development of the following gene therapies:

#### 1. HF10 Anti-cancer Therapy

Takara Bio acquired the HF10 business from M's Science Corporation in November 2010 and is currently conducting a Phase I clinical trial in the United States for the treatment of head and neck cancer and other solid tumors, which is scheduled for completion in fiscal 2014. HF10 is a spontaneously occurring attenuated mutant of Herpes Simplex virus Type 1 that displays strong antitumor activity (oncolytic activity) when locally

injected into tumors. Moreover, preclinical data suggests that HF10 also contributed to the acquisition of immunity against the tumors.

In Japan, three clinical studies were conducted in patients with breast cancer, head and neck cancer, and pancreatic cancer at Nagoya University School of Medicine. The results of these studies showed oncolytic activity and tolerability of HF10.

In December 2011, Mie University Hospital began a clinical study on solid tumors. Further, in April 2013, Nagoya University School of Medicine commenced a clinical study with patients suffering from non-resectable pancreatic cancer for the treatment in combination of HF10 with existing anticancer drugs.

#### 2. HSV-TK Gene Therapy

MoIMed S.p.A, of Italy, which has in-licensed the RetroNectin® method from Takara Bio, is now conducting a Phase III clinical trial of HSV-TK gene therapy for high-risk, acute hematological malignancies in Europe. Takara Bio has exclusive rights to this treatment technology in most Asian countries.

In 2008, Takara Bio began conducting a Phase I clinical trial of HSV-TK gene therapy (project code: TBI-0301) at the National Cancer Center Hospital for treatment of patients with relapsed leukemia after hematopoietic stem cell transplantation. However, the number of existing patients with this condition remained low. In order to accelerate this gene therapy project, the TBI-0301 trial was discontinued and a new joint clinical trial in Japan and South Korea (phase I / II clinical trial, project code: TBI-1101) is in preparation to commence in fiscal 2016. The new trial will focus on patients with hematological malignancy after having undergone HLA mismatched hematopoietic stem cell transplantation.

#### 3. MazF Gene Therapy

Takara Bio, in a joint effort with both the University of Pennsylvania and Drexel University, commenced an endoribonuclease MazF based gene therapy Phase I clinical trial in the United States for patients that have been infected the human immunodeficiency virus (HIV, otherwise known as the AIDS virus). This clinical trial is scheduled for completion in fiscal 2016.

In the mechanism of AIDS, replication of the virus in infected HIV immune cells causes deficiencies in the entire immune system. However, the MazF-modified T-cells (a type of immune cells) are expected to remain functional even if infected by HIV, by preventing replication of the virus. MazF genes are transduced into patient-derived T-cells *ex vivo* using retroviral vectors that express MazF conditionally upon HIV infection. The MazF-modified T-cells that are infused back into the patients will cleave the RNA strand of HIV and thereby block the replication of the virus when it infects the transduced T-cells. As a result, this method has the potential to become a gene therapy treatment for HIV infections.

#### 4. TCR Gene Therapy

Takara Bio, in collaboration with Mie University Hospital, is preparing a Phase I clinical trial in fiscal 2014 on MAGE-A4 antigen-specific T-cell receptor (TCR) gene therapy utilizing next-generation retroviral vectors developed by the Company. The main mechanism of TCR gene therapy is that the gene-transduced lymphocytes, which acquire the capability to specifically



Production of vectors



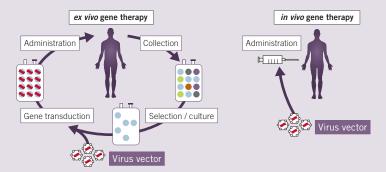
Safety cabinet

#### **GENE THERAPY**

The purpose of gene therapy is to cure disease by administering to a patient specific genes or genetically-modified cells in order to correct a genetic birth defect or cure disease (for example, cancer or AIDS).

Gene therapies are classified into two types; *ex vivo* and *in vivo*. In *ex vivo* gene therapy, a target gene is transduced into cells taken from a patient or a donor and the genetransduced cells are subsequently infused back into the same patient. In contrast, *in vivo* gene therapy involves the direct administration of therapeutic genes into patients.

#### Gene therapies are classified into two types; ex vivo and in vivo



#### **FUTURE MEASURES**

#### **Gene Therapy**

- Clinical development of oncolytic virus HF10 in the United States
- Clinical development of HSV-TK gene therapy for patients with hematological malignancy
- Clinical development of MAGE-A4 antigen-specific TCR gene therapy for esophageal cancer patients
- Clinical development of MazF gene therapy for HIV in the United States
- Clinical development of NY-ESO-1 antigen-specific TCR gene therapy for solid tumors



Cell culture media and gas-permeable bags

#### **CELL THERAPY**

Cell therapy entails the treatment of patients with living cells. In a broad sense, blood transfusions and bone marrow transplantation are both cell therapies. In a narrower definition of the term, however, cell therapy consists of processes such as the separation of specific cells, their storage, and their amplification and processing in culture.

recognize cancer cells, attack and eliminate the cancer. TCR genes that are capable of recognizing cancer antigens are tranceduced into the patient's own lymphocytes, which are then re-infused into the patient.

Further, the Company is also preparing to start up a new project involving NY-ESO-1 antigenspecific TCR gene therapy with the aim of commencing Phase I clinical trials in fiscal 2015.

TCR gene therapy seems such a promising technology that clinical trials targeting melanoma and other cancers using the RetroNectin® method are already being conducted at the National Cancer Institute in the United States.

#### **CELL THERAPIES**

Activated lymphocyte therapy, a type of cancer immunotherapy that has extremely few side effects, is gradually spreading in use and becoming a fourth category of cancer therapy alongside surgery, chemotherapy, and radiation. Takara Bio is involved in the clinical development of cancer immunotherapy using the RetroNectin® expansion-culture system, which has been named "RetroNectin® induced T-cell therapy (RIT)," and Natural Killer (NK) cell therapy. Takara Bio also provides three Japanese clinics with technical support services for cancer immunotherapies.

#### 1. Clinical Development of Cancer Immunotherapy

Takara Bio has developed a large-scale culture method that produces approximately 90%, highly pure NK cells. Since 2012, in collaboration with the Kyoto Prefectural University of Medicine, NK cell therapy clinical study has been conducted on patients with gastrointestinal cancer.

#### **FUTURE MEASURES**

#### **Cell Therapy**

- Clinical development of NK cell therapy
- Acquisition of evidential data on the clinical development of RetroNectin® induced
  T cell therapy (RIT) to increase sales of technical support services for clinics
- Expansion of revenue from cell culture media and gas-permeable bags in China
- Establishment of GMP-compliant manufacturing facility at Takara Biomedical Technology (Beijing) Co., Ltd., to develop GMP-grade products for cell therapy

#### Contract Development and Manufacturing Organization (CDMO) Business

 Growing business of providing biopharmaceutical development support; biosafety testing services and production of vectors for regenerative medicine and gene therapy applications

#### 2. Technical Support Services for Cancer Immunotherapy

Technical support services for cell processing

Takara Bio is providing technical support, on a per fee basis, for RIT cell therapy to the Iseikai Hyakumanben Clinic in Kyoto, the Takeda Hospital Group's Takeda Clinic in Kyoto, and Aino Hospital in Ibaraki city in Osaka. This technical support includes cell processing for the therapy. Going forward, Takara Bio plans to continue developing new cell-processing technology that is effective in cancer immunotherapy to expand technical support services for clinics.

2) Sales of cell culture media and gaspermeable bags for cell therapy

Takara Bio markets cell culture media and gaspermeable bags for cell therapy. In particular, it is concentrating on expanding its business in China, where the cell therapy market is rapidly growing.

## CONTRACT DEVELOPMENT & MANUFACTURING ORGANIZATION (CDMO) BUSINESS

Takara Bio has facilities and systems for manufacturing vectors for regenerative medicine and gene therapy applications in accordance with Good Manufacturing Practice (GMP). As well as manufacturing vectors for clinical trials of its own gene therapy projects, Takara Bio provides contract vector manufacturing services for the clinical research activities of medical institutions. Further, in collaboration with SGS Vitrology Ltd. of the United Kingdom, Takara Bio has launched safety testing services for bio-pharmaceuticals in Japan.

As the pace of regenerative medicine clinical development accelerates, the market for Takara Bio's contract development and manufacturing organization (CDMO) business is expected to expand. In order to respond to this demand, the Company is currently constructing a new GMP-compliant manufacturing facility, which is expected to start commercial production in October 2014. The additional production capacity from this facility will be used not only to produce clinical-grade vectors for the Company's own gene therapy projects but also to provide GMP contract manufacturing services for vectors as well as gene modified cells for regenerative medicine and gene therapy applications.

#### Genetic Engineering Research

### Launch of new reagent for easy detection of the pluripotency for ES and iPS cells



Primer set

On October 1, 2012, Takara Bio launched a primer set that enables scientists to check whether the pluripotent stem cells, such as ES or iPS cells, have differentiated or not.

Since May 2011, Takara Bio's Dragon Genomics Center has been developing a new method to evaluate the quality of human ES cells with Kyoto University as part of the NEDO (New Energy and Industrial Technology Development Organization) project, "Fundamental Technology Development for Promoting Industrial Application of Human Stem Cells." In this endeavor, Takara Bio has analyzed gene expression patterns for a variety of different human ES cell lines to find the genes characteristic to stem cells.

As a result, 88 genes have successfully been identified that display different expression patterns between undifferentiated ES cells and differentiated ones. Based on these genes, Takara Bio commercialized a reagent (primer set) that utilizes its real-time reverse transcription polymerase chain reaction (RT-qPCR) reagent to realize easy confirmation of whether or not cells have maintained their undifferentiated state (pluripotency). This product can also be applied to iPS cells, to evaluate not only the culture conditions but also the quality of newly created iPS cells.

#### Gene Medicine

## Establishment of a new manufacturing facility in Beijing to produce clinical grade antibodies for cell therapy



Takara Biomedical Technology (Beijing) Co., Ltd.

On November 5, 2012, Takara Bio announced that it will establish a new facility in July 2013 within the grounds of its consolidated subsidiary Takara Biomedical Technology (Beijing) Co., Ltd. to manufacture anti-CD3 monoclonal antibodies and other antibodies for cancer immunotherapy in compliance with GMP (Good Manufacturing Practice). Takara Bio will invest approximately ¥150 million for this project.

Takara Biomedical Technology has been marketing cell culture media and gaspermeable bags for cancer immunotherapy to Chinese medical institutions. As the Chinese market of cancer immunotherapy has been expanding, the sales of these products have been rapidly growing.

This GMP-compliant facility will enable Takara Bio to expand the product lineup for cell therapy to establish a solid position in the growing market in China.

#### Gene Medicine

#### Initiation of Phase I HIV gene therapy clinical trial in the United States

On December 21, 2012, Takara Bio and its collaborators (University of Pennsylvania and Drexel University College of Medicine) commenced a Phase I clinical trial of MazF gene therapy for the treatment of HIV infections.

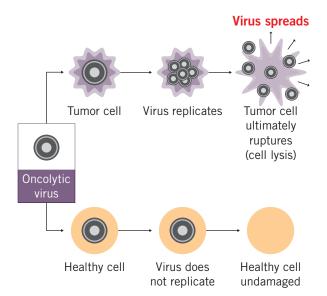
The Company has developed an investigational retroviral technology for HIV gene therapy, in which MazF, an endoribonuclease derived from *Escherichia coli*, confers resistance to a broad-spectrum of HIV strains on CD4+ T cells. The MazF retrovirus vector for this clinical trial is manufactured at the GMP (Good Manufacturing Practices) compliant facility of the Company (Kusatsu, Shiga, Japan). The patients' CD4+ T cells will be modified with MazF retroviral vector at the University of Pennsylvania, and then infused to patients at the Hahnemann University Hospital, which is affiliated with Drexel University College of Medicine.

In this clinical trial, the patients will be monitored for six months for safety, tolerability, and immunogenicity of the autologous CD4+ T cells modified with the MazF endoribonuclease. The Company aims to commercialize MazF gene therapy treatments by fiscal 2023.

#### Gene Medicine

## Expansion of Phase I clinical trial for HF10 anti-cancer therapy to start multiple dosing study

#### Treatment Mechanism of HF10 Anti-cancer Therapy



Takara Bio has been conducting a Phase I clinical trial of HF10 anti-cancer therapy in the U.S., and completed its single dosing study with 15 cases.

Intending to move the development program forward quickly, the protocol of the single dosing Phase I trial was amended to add a multiple dosing cohort, which had been planned to be conducted at the later phase. Following approval by the review committees of the clinical sites and the U.S Food and Drug Administration, the Company started the multiple dosing study and the first patient was treated at Oregon Health and Science University on February 25, 2013.

In this study, the safety, tolerability and the efficacy of the multiple dose HF10 will be evaluated as well as the correlative immunological response in patients with refractory solid tumors and with cutaneous and/or superficial lesions.

Takara Bio continues trying to advance the clinical development of HF10, targeting its commercialization by March 2019.

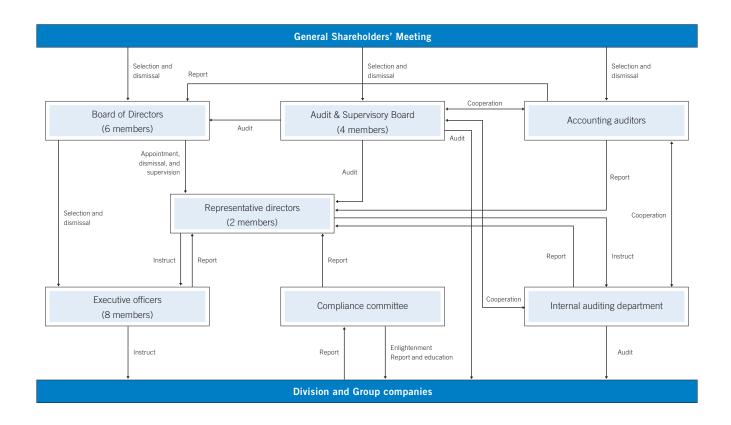
#### CORPORATE GOVERNANCE

At Takara Bio, "contributing to the health of mankind through the development of revolutionary biotechnologies such as gene therapy" is our corporate philosophy. Guided by this philosophy, Takara Bio is dedicated to the development of biotechnology-related products and technologies as an R&D-oriented organization. In the biotech industry, which is dependent on constant technical innovation, our management policy is to conduct R&D aggressively while returning profits to our shareholders by increasing corporate value through improved business results. To achieve this, we are striving to expedite our decision making and to improve our business efficiency.

The Board of Directors consists of six members (including one external director) who meet whenever necessary in addition to the regular monthly Board meetings. The Board makes decisions on important issues concerning the management of the Company and its management policies as well as overseeing execution of the Company's business. One external director has been designated as an independent director in accordance with the rules stipulated by the Tokyo Stock Exchange (TSE), and TSE has been notified of this designation.

The Company has adopted an Audit & Supervisory Board (ASB) system, and two of our four ASB members are external to the Company. The Company has established an internal auditing department comprising three personnel. The Company endeavors 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 70.44% of the voting rights as of the end of March 2013. 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 Takara Group to maintain its uniqueness and independence. Since our business of biotechnology requires highly advanced expertise and quick decision making, we are especially unique and independent in 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.



#### **BOARD OF DIRECTORS**

As of June 21, 2013



Koichi Nakao

President & CEO, Takara Bio Inc. Director, Takara Holdings Inc.

Chairman,

Takara Biotechnology (Dalian) Co., Ltd.

Takara Biomedical Technology (Beijing) Co., Ltd.

President, Takara Bio USA Holdings Inc. Chairman, Takara Korea Biomedical Inc. Apr. 1985 Joins Takara Shuzo Co., Ltd.

Apr. 2002 Director

Jun. 2003 Managing Director & Executive Officer

Jun. 2004 Senior Managing Director & Executive Officer

Jun. 2007 Vice President & Executive Officer

Jun. 2008 Vice President

May 2009 President (incumbent)

President, Takara Bio USA Holdings Inc.

(incumbent)

Chairman, Takara Biotechnology (Dalian) Co.,

Ltd. (incumbent)

Chairman, Takara Biomedical Technology

(Beijing) Co., Ltd. (incumbent)

Jun. Director, Takara Holdings Inc. (incumbent)

Mar. 2010 Chairman, Takara Korea Biomedical Inc.

(incumbent)



Hisashi Ohmiya

Chairman, Takara Bio Inc. Chairman, Takara Holdings Inc. Chairman, Takara Shuzo Co., Ltd. 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)



Mutsumi Kimura

Executive Vice President, Takara Bio Inc.

Apr. 1985 Joins Takara Shuzo Co., Ltd.

Apr. 2002 Director

Jun. 2003 Director & Executive Officer

Jun. 2004 Managing Director & Executive Officer

Jun. 2007 Senior Managing Director & Executive Officer

Jun. 2008 Senior Managing Director

May 2009 Executive Vice President (incumbent)



Makoto Moriguchi

Executive Vice President, Takara Bio Inc. President, Mizuho Nourin Co., Ltd. President, KINOKO CENTER KIN INC. President, Takara Bio Farming Center Inc. Apr. 1980 Joins Takara Shuzo Co., Ltd.

Apr. 2002 Director

Jun. 2003 Senior Corporate Executive Officer

Jun. 2007 Executive Officer

May 2009 President, Takara Bio Farming Center Inc.

(incumbent)

Jun. Senior Executive Officer

Jun. 2010 President, Mizuho Nourin Co., Ltd. (incumbent)

President, KINOKO CENTER KIN INC.

(incumbent)

Jun. 2012 Senior Managing Director

Jun. 2013 Executive Vice President (incumbent)



Kazutoh Takesako, Ph.D. Senior Managing Director, Takara Bio Inc.

Apr. 1976 Joins Takara Shuzo Co., Ltd. Jun. 2003 Executive Officer

Apr. 2004 Senior Executive Officer

Jun. 2007 Director & Executive Officer

Jun. 2008 Senior Executive Officer

Jun. 2009 Senior Managing Director (incumbent)



Jawaharlal Bhatt
Director (External Director), Takara Bio Inc.

Apr. 1985 Director, Cooper LaserSonics, Inc.

Jun. 1990 President & CEO, Bio NovaTek
International, Inc.

May 2000 President & CEO, Jay Bhatt, Inc.

Jun. 2010 Director (incumbent)

#### **AUDIT & SUPERVISORY BOARD MEMBERS**

#### Susumu Sano, Ph.D.

Standing Audit & Supervisory Board Member, Takara Bio Inc.

Apr. 1975 Joins Takara Shuzo Co., Ltd.

Apr. 2002 Executive Officer

Feb. 2003 Retires as Executive Officer

Apr. 2004 Senior Executive Officer

Jun. Director & Executive Officer

Jun. 2006 Senior Corporate Executive Officer

Jun. 2007 Standing Audit & Supervisory Board Member (incumbent)

#### Kiyozo Asada, Ph.D.

Standing Audit & Supervisory Board Member, Takara Bio Inc.

Apr. 1987 Joins Takara Shuzo Co., Ltd. Jun. 2000 Director, Takara Shuzo Co., Ltd.

Mar. 2002 Retires as Director, Takara Shuzo Co., Ltd.

Apr. Director

Jun. 2003 Managing Director & Executive OfficerJun. 2004 Senior Managing Director & Executive Officer

Jun. 2008 Senior Managing Director

Jun. 2011 Standing Audit & Supervisory Board Member (incumbent)

#### Tomio Kamada

External Audit & Supervisory Board Member, Takara Bio Inc.
Standing Audit & Supervisory Board Member, Takara Holdings Inc.

Audit & Supervisory Board Member, Takara Shuzo Co., Ltd.

Apr. 1972 Joins Takara Shuzo Co., Ltd.

Jun. 2007 Standing Audit & Supervisory Board Member, Takara

Holdings Inc. (incumbent)

 $\label{lem:eq:audit & Supervisory Board Member, Takara Shuzo Co., Ltd. \\$ 

(incumbent)

Jun. 2009 Audit & Supervisory Board Member (incumbent)

#### Shinji Ueda

External Audit & Supervisory Board Member, Takara Bio Inc. Audit & Supervisory Board Member, Takara Holdings Inc.

Standing Audit & Supervisory Board Member, Takara Shuzo Co., Ltd.

Apr. 1976 Joins Takara Shuzo Co., Ltd.

Jun. 2013 Audit & Supervisory Board Member (incumbent)

Standing Audit & Supervisory Board Member, Takara Shuzo

Co., Ltd. (incumbent)

Audit & Supervisory Board Member, Takara Holdings Inc.

(incumbent)

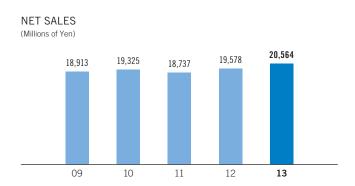
Senior Executive Officer Kazuki Yamamoto Senior Executive Officer Yoh Hamaoka, Ph.D. Senior Executive Officer Hiroyuki Mukai, Ph.D. Senior Executive Officer Junichi Mineno, Ph.D. **Executive Officer** Masahide Tamaki **Executive Officer** Hiroaki Miyazawa **Executive Officer** Tsuyoshi Miyamura **Executive Officer** Masanari Kitagawa, Ph.D.

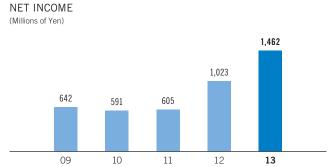
#### FIVE-YEAR FINANCIAL SUMMARY

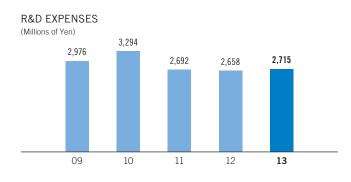
(Millions of Yen)	2009	2010	2011	2012	2013
For the Years Ended March 31:					
Net sales (sales to customers)	18,913	19,325	18,737	19,578	20,564
Genetic Engineering Research	16,733	16,689	15,882	16,300	16,997
Gene Medicine	165	392	493	842	1,240
AgriBio	2,014	2,243	2,361	2,435	2,326
Cost of sales	8,973	9,286	8,858	9,194	9,540
Selling, general and administrative expenses	9,513	9,485	8,781	8,836	9,332
Operating income	426	553	1,097	1,547	1,691
Income before income taxes and					
minority interests	99	697	978	1,662	2,268
Net income	642	591	605	1,023	1,462
Depreciation	1,346	1,230	1,122	1,077	1,104
Capital expenditures	1,059	1,069	918	926	2,397
R&D expenses	2,976	3,294	2,692	2,658	2,715
As of March 31:					
Total assets	43,117	43,651	42,594	44,032	46,649
Total equity	37,149	37,799	37,620	38,413	41,465
Per Share of Common Stock (Yen)*:					
Basic net income	5.70	5.24	5.37	9.06	12.94
Equity	329.33	334.93	333.07	339.73	364.65
Ratios (%):					
Return on assets (ROA)	1.5	1.4	1.4	2.3	3.1
Return on equity (ROE)	1.7	1.6	1.6	2.7	3.7
Equity ratio	86.2	86.6	88.3	87.1	88.8

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

<sup>\*</sup> Indicated prices are retroactively adjusted for a 400-for-one stock split, taking April 1, 2011, as the effective date.









#### MANAGEMENT'S DISCUSSION AND ANALYSIS

#### **Net Sales**

Capitalizing on biotechnology developed over many years, the Takara Bio Group has focused its management resources on three business fields: Genetic engineering research, AgriBio, and Gene medicine. For fiscal 2013, ended March 31, 2013, net sales rose by 5.0%, or ¥985 million, year-on-year, to ¥20,564 million, driven mainly by an increase in sales of research reagents in the Genetic engineering research business, as well as substantial sales growth in the Gene medicine business.

#### **Income Statement Analysis**

Cost of sales in fiscal 2013 was up 3.8%, or ¥345 million, year-on-year, to ¥9,540 million, due to an increase in net sales. Gross profit also rose by 6.2%, or ¥640 million, year-on-year, to ¥11,024 million. Selling, general and administrative (SG&A) expenses increased by 5.6%, or ¥496 million, year-on-year, to ¥9,332 million, as personnel and R&D expenses rose. As a result, operating income rose by 9.3%, or ¥144 million, year-on-year, to ¥1,691 million.

Research grant income declined by ¥39 million, but this was offset by the recording of a gain from revision of the retirement benefit plan of ¥345 million as well as decreases of ¥143 million in loss on disposals of fixed assets and ¥23 million in foreign exchange loss. As a result, other income, net was up ¥462 million.

'Income before income taxes and minority interests' amounted to  $\pm 2,268$  million. Due to the increase in 'income before income taxes and minority interests,' the total of income taxes was up  $\pm 177$  million. Consequently, net income was  $\pm 1,462$  million.

#### **Segment Information**

#### **Analysis by Business Segment**

Genetic Engineering Research

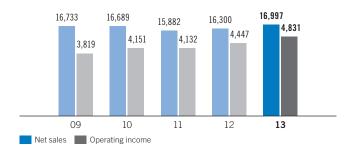
Given the ever-widening activities of biotechnology R&D, the Company has positioned as its core business the Genetic engineering research business, which mainly markets products and contract research services supporting such R&D activities.

Analyzing sales by product category, net sales of mainstay research reagents rose year-on-year, despite the effect of yen appreciation. Lower sales of mass spectrometry systems led to a decrease in scientific instrument sales. However, contract research services sales were up year-on-year. As a result, the business segment recorded a year-on-year increase of 4.3% in sales to external customers, to ¥16,997 million, and 5.8% in gross profit, to ¥10,154 million. SG&A expenses rose by 3.4%, to ¥5,322 million, owing to higher personnel expenses, which outweighed the decline in R&D expenses. However, operating income improved by 8.7% year-on-year, to ¥4,831 million.

#### SG&A EXPENSES / SG&A EXPENSES RATIO (Millions of Yen)



#### Genetic Engineering Research NET SALES / OPERATING INCOME (Millions of Yen)



#### AgriBio

In the AgriBio business, the Group uses leading-edge biotechnology to develop, produce, and market health-oriented food ingredients based on traditional Japanese food. Moreover, the segment has established clear scientific evidence for the bioactive properties of those products. The concept that food is the primary source of health guides those efforts. Business development is centered on products related to Gagome kombu (kelp) "Fucoidan," the herb (*Peucedanum japonicum*) "Isosamidin," agar-derived "Agaro-oligosaccharide," and Ashitaba (angelica herb) "Chalcone."

In fiscal 2013, the business segment recorded a 4.5% year-on-year decrease in sales to external customers, to ¥2,326 million. Sales of functional food products and mushroom products were down when compared with the previous year. Gross profit decreased 27.9% year-on-year, to ¥282 million, due to unfavorable product mix with different margin rate. Personnel expenses were up, but R&D expenses declined, leading to a 9.0% year-on-year reduction in SG&A expenses, to ¥587 million, and operating loss worsened from the previous fiscal year's ¥253 million to ¥304 million.

#### Gene Medicine

Recently, the cell and gene therapy field has seen rapid advances. As a result, lead times from basic research to clinical application are shortening, thereby accelerating progress toward practical applications for regenerative medicine. Under such business circumstances, Takara Bio is marketing cell culture media and gas-permeable bags as well as providing technical support services for hospitals conducting cancer immunotherapy. In addition, in this business segment the Company is focusing on the early commercialization of cell and gene therapies, promoting the clinical development of cancer and AIDS gene therapies, based on the Company's original technologies, such as the RetroNectin® method, a highly efficient gene transduction method; the highly efficient RetroNectin® lymphocyte expansion-culture system; and the MazF endoribonuclease.

Reflecting brisk sales of cell culture media and gaspermeable bags for cell therapy in China, the sales in fiscal 2013 to external customers surged by 47.2%, to  $\pm$ 1,240 million, and gross profit grew 48.3%, to  $\pm$ 587 million, compared with the previous year. Mainly due to higher R&D and personnel expenses, SG&A expenses increased by 7.4% year-on-year, to  $\pm$ 1,699 million. As a result, operating loss slightly improved from the previous fiscal year's  $\pm$ 1,186 million to  $\pm$ 1,112 million.







#### **Financial Condition**

Total current assets as of March 31, 2013, fiscal year-end amounted to ¥31,138 million, up ¥1,281 million compared with the previous fiscal year-end. This rise resulted from a ¥437 million increase in 'notes and accounts receivable-trade,' and a ¥386 million rise in 'cash and deposits,' as well as a ¥372 million rise in inventories. Total noncurrent assets at the fiscal year-end stood at ¥15,510 million, up ¥1,335 million compared with the previous fiscal year-end. This rise was due in part to an increase of ¥1,654 million in 'net property, plant and equipment' due to the acquisition of land, and a ¥304 million decrease in 'total investments and other assets' due to a decline in deferred tax assets following the revision of the retirement benefit systems.

As a result, total assets at the fiscal year-end stood at ¥46,649 million, up ¥2,616 million compared with the previous fiscal year-end.

Total current liabilities at the fiscal year-end amounted to ¥3,977 million, up ¥142 million compared with the previous fiscal year-end. This growth was principally attributable to a ¥74 million increase in accrued income taxes. Total long-term liabilities at the fiscal year-end stood at ¥1,206 million, down ¥577 million compared with the previous fiscal year-end. This decline was the result of a ¥710 million

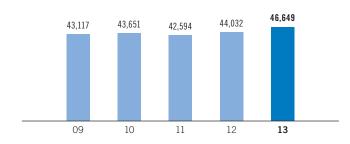
decrease in liability for retirement benefits following the revision of the retirement benefit systems.

As a result, total liabilities at the fiscal year-end amounted to ¥5,183 million, a decrease of ¥435 million compared with the previous fiscal year-end.

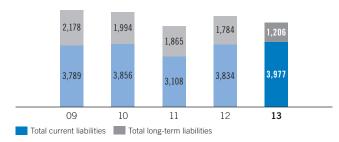
Total equity as of March 31, 2013, amounted to  $\pm$ 41,465 million, an increase of  $\pm$ 3,051 million compared with the previous fiscal year-end. This was due to a  $\pm$ 1,374 million increase in foreign currency translation adjustments, a  $\pm$ 1,350 million increase in retained earnings reflecting the increase in net income, and a combined increase of  $\pm$ 328 million in common stock and capital surplus following the exercising of stock acquisition rights.

The equity ratio—total equity as a percentage of total assets—was 88.8%, maintaining the Company's high level of financial stability.

TOTAL ASSETS (Millions of Yen)



TOTAL LIABILITIES (Millions of Yen)



#### **Cash Flows**

Cash and cash equivalents at the fiscal year-end stood at ¥6,538 million, up ¥734 million compared with the previous fiscal year-end. Factors decreasing cash included the impacts of the decrease in provision for retirement benefits, outflow for income taxes paid, payments for time deposits, and payments for the acquisition of 'net property, plant and equipment.' However, these were offset by 'income before income taxes and minority interests,' 'depreciation and amortization (including other depreciation),' proceeds from withdrawal of time deposits, and proceeds from issuance of common stock.

Net cash provided by operating activities amounted to \$2,226 million. Major uses of cash included the decrease in provision for retirement benefits of \$711 million, income taxes paid of \$512 million, and a \$290 million increase in trade receivables, while 'income before income taxes and minority interests' provided \$2,268 million and 'depreciation and amortization (including other depreciation)' provided \$1,393 million. The \$139 million year-on-year decrease in net cash provided by operating activities was attributable to increases in cash, including a \$606 million increase in 'income before income taxes and minority interests' and a \$570 decrease in 'increase in trade receivables,' and to decreases in cash resulting from a \$706 million increase in 'provision for retirement benefits' and the recording of a decrease in trade payables of \$625 million.

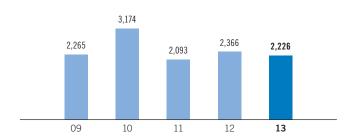
Net cash used in investing activities totaled ¥2,079 million, reflecting payments for time deposits of ¥21,270 million, purchases of net property, plant and equipment of ¥2,341 million, which counteracted proceeds from time deposits of ¥21,756 million. The ¥1,548 million year-on-year increase in net cash used in investing activities mainly resulted from a ¥13,634 million increase in payments for time deposits, a ¥1,479 million increase in payment for purchases of net property, plant and equipment, and a ¥13,779 million increase in proceeds from time deposits.

Net cash provided by financing activities amounted to ¥149 million, resulting from proceeds from issuance of common stock of ¥324 million, which offset cash dividends paid of ¥111 million, repayments of long-term debt of ¥59 million, and repayments of lease obligations of ¥23 million. The recording of net cash provided by financing activities of ¥149 million in fiscal 2013, in comparison to minus ¥4 million in the previous fiscal year, was due to increases in cash, including proceeds from issuance of common stock of ¥324 million, and decreases in cash, resulting from cash dividends paid of ¥111 million and the absence of ¥40 million in proceeds from minority shareholders recorded during the previous fiscal year.

#### CASH FLOWS FROM BUSINESS ACTIVITIES

(Millions of Yen)	2009	2010	2011	2012	2013
Net cash provided by operating activities	¥ 2,265	¥ 3,174	¥ 2,093	¥ 2,366	¥ 2,266
Net cash provided by (used in) investing activities	(5,511)	(7,060)	(5,639)	(531)	(2,079)
Net cash provided by (used in) financial activities	(168)	(57)	(60)	(4)	149

#### NET CASH PROVIDED BY OPERATING ACTIVITIES (Millions of Yen)



#### **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 2013 ended March 31, 2013, and any other statements with respect to future events are based on the Group's assumptions as of June 27, 2013.

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 merely a work of Takara Bio based on the Company's judgment and understanding.

#### 1. Research and development

A diverse range of industries are biotechnology-related, including the medical field (cell and gene therapy); the research support field, in which direct targets for the Company's business include research institutions and universities that are seeking to promote basic research and to develop new drugs; the environment and energy field (bioremediation and biomass research); the bioinformatics field; and the food field (agriculture and functional foods).

Under these circumstances, the Group conducts extensive R&D, which it considers vital to maintaining its competitive edge. In fact, the Group's R&D expenses for fiscal 2013 were ¥2,715 million, or 13.2% 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 medicine 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 2013, Takara Biotechnology (Dalian), a Chinese subsidiary, accounted for 33.8% of the manufacturing products for the Group in the Genetic engineering research business, which generated 82.7% 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 centers is also 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 and certain milestone payments. These expenditures are booked to assets as long-term prepaid expenses at the time of the expenditure and are treated systematically as expenses in each fiscal year, based on the terms of the agreements. 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 and the occurrence of subsequent milestone payments. 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 firm, stable revenue base, a solid presence in the Asian market, and an extensive, proprietary technological lineup. 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 Genetic engineering research business, the license agreement related to the Polymerase Chain Reaction Method (hereinafter "PCR Method") is non-exclusive, and a large number of companies hold such licenses. As a result, competition is becoming increasingly severe. In addition, new technologies are emerging that could be alternatives to the LA PCR Method and the ICAN Method, for which Takara Bio holds the patent rights and which it has positioned as its core technologies. Furthermore, entry into the manufacturing and sale of scientific instruments is relatively easy as it does not require licensing and approval, unlike medical instruments, and Takara Bio has a large number of competitors in this business field as well.

In the Gene medicine business, a variety of gene transduction methods and effective vectors have been developed, and the applications of gene therapy are expanding from congenital genetic disorders, infectious diseases, and various types of cancer to non-fatal chronic illnesses. Also, cell therapy is not only used to cure the diseases themselves, but also to improve patients' quality of life (QOL). Thus, a potentially enormous market has opened up, which has resulted in many enterprises investing R&D resources in cell and gene therapies, including European and U.S. venture businesses.

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. Legal regulations impose restrictions on the descriptions of efficacies and effects. Moreover, the use of experimental data for differentiation in sales promotion is prohibited. As a result, it is easy to enter this market, further intensifying the competition.

Therefore, the Group strives to start new business projects and attain early commercialization of projects at their R&D stage. However, if a competitor commercializes a similar product or technology before the Group does, or commercializes a technology that is better than the Group's technology, the Group could fail to meet its earnings plans.

#### 5. Parent company of Takara Bio

As of March 31, 2013, Takara Holdings Inc. (listed on the First Section, Tokyo Stock Exchange and Osaka Stock Exchange) is the parent company of Takara Bio, owning 70.44% 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 associated 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 an operating 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 70.44% as of March 31, 2013, through 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 41 affiliated companies (38 subsidiaries and 3 associated 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 10 affiliated 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 the Company's functional foods. The Group's functional foods are now sold to customers through Takara Healthcare. The amount of transactions with Takara Healthcare in fiscal 2013 was ¥650 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, President & CEO and Executive Vice President of Takara Bio, President of Takara Shuzo	Confirmation of matters related to entire Group	In principle, once every two months
Biotechnology Business Report Meeting	Takara Holdings' directors, Takara Bio's directors and 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 27, 2013.

Name	Position at Takara Bio	Position at Takara Holdings	
Hisashi Ohmiya	Chairman	Chairman	
Koichi Nakao	President & CEO	Director	
Tomio Kamada	Audit & Supervisory Board Member	Standing Audit & Supervisory Board Member	
Shinji Ueda	Audit & Supervisory Board Member	Audit & Supervisory Board Member	

Hisashi Ohmiya was appointed as a chairman of the Board of Directors of the Company 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 the Company would be of use to the Company. Similarly, Tomio Kamada was appointed as Audit & Supervisory Board Member of the Company based on his valuable experience and knowledge, gained in the Accounting Division of Takara Shuzo and through his concurrent appointments as standing Audit & Supervisory Board Member at Takara Holdings and Audit & Supervisory Board Member at Takara Shuzo. Likewise, Shinji Ueda was appointed as Audit & Supervisory Board Member of the Company based on the belief that his valuable experience and knowledge, gained in his prominent positions as General Manager of the secretarial offices of Takara Holdings and Takara Shuzo, would be beneficial to the Company. Moreover, 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 the Company.

The Company accepted one employee on temporary transfer from Takara Shuzo, a subsidiary of Takara Holdings. The Company asked Takara Shuzo for this temporary transfer for the purpose of adopting know-how for its Accounting Division.

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 the Company. 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 the Company since these transfers. The real estate lease transactions relating to the lease of sales sites by the Company are as follows. In the event of difficulties in the renewal of these transactions, the performance of the Company could be affected with regard to revenue until the Company is able to secure an alternative site and relocation expenses.

Property	Use	Lessor	(Year ended March 31, 2013, Millions of Yen)	Transaction terms, etc.
6F and basement, Takara Meiji Yasuda Building (Chuo-ku, Tokyo)	Takara Bio, East Japan Branch	Takara Shuzo	11	Area: 123.55m <sup>2</sup> Type of agreement: Lease agreement Basis for computation of rental fees: Market price of land, buildings, etc.

Amount of transaction

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.
- 3. Name changed to Tokyo Branch, Sales Department effective April 1, 2013.

2) Transactions related to use of trademark rights
Takara Holdings owns and controls some trademarks used
by the Company. The Company 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, 2013, the Company had licenses for the use of 86 registered and 43 pending trademarks in Japan and overseas. In the event that the Company is unable to obtain licenses for the use of trademarks from Takara Holdings for any reason, it might affect the Company's performance.

Company name (Address)	Details of transaction	Amount of transaction (Year ended March 31, 2013, Millions of Yen)	Terms of transaction, etc.
Takara Holdings Inc. (Shimogyo-ku, Kyoto)	License for use of trademarks	9	Type of agreement: License agreement for use of trademarks (concluded 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 (neither includes consumption tax)

#### 3) Other

Takara Bio engages in the following agreement-based transactions with the Takara Holdings Group companies (excludes Takara Bio Group companies).

Company name (Address)	Details of transaction	Amount of transaction (Year ended March 31, 2013, Millions of Yen)	Terms of transaction, etc.
Takara Shuzo Co., Ltd. (Fushimi-ku, Kyoto)	Lease of company housing	0	Type of agreement: Lease agreement Basis for computation of rental fees: Market price of land, building, etc.
	Temporary transfer of employees to Takara Bio	17	Type of agreement: Employment secondment agreement
Takara Network System Co., Ltd. (Shimogyo-ku, Kyoto)	Contracting of computer-related services and lease of equipment	276	Type of agreement:  Basic agreement concerning contracting of services and lease of equipment  Details of services:  Account-related system operation support; client-server system operation support; lease of PCs; purchasing of consumables, etc.

Notes: 1. The above amounts do not include consumption tax, etc.

#### 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 development of the Group's business.

#### 7. 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 reasons, or if revisions to the agreements are disadvantageous to the Group, it could affect the business strategy and performance of the Group.

#### 1) Genetic engineering research business

#### a) Research reagents

Counterparty	Life Technologies Corporation
Contract	Restated and Amended Patent License Agreement
Conclusion date	September 21, 2006
Term	From September 1, 2006, until all the licensed patents have expired.
Summary	F. Hoffman-La Roche Ltd. granted Takara Bio worldwide non-exclusive rights for the Polymerase Chain Reaction (PCR) Method, excluding the diagnostic area. However, F. Hoffman-La Roche granted exclusive rights for the PCR Method that it owned to Applera Corporation, through its Applied Biosystems Group, based on an agreement between F. Hoffman-La Roche and Applera Corporation. As a result, Applera assumed the license agreement that Takara Bio and F. Hoffman-La Roche concluded in 1997. Subsequently, this license agreement was amended and, in addition to rights for the PCR Method, Takara Bio was granted rights relating to the real-time PCR Method and other items in September 2006. Subsequently, Applera transferred its contractual status with Takara Bio to Life Technologies Corporation. As a result, Takara Bio pays Life Technologies Corporation a certain running royalty linked to sales.

<sup>2.</sup> Apart from this, Takara Bio conducts business through order placement and acceptance of orders for the production of printed material with Takara Holdings Group companies on a per order basis.

Counterparty	Wayne M. Barnes
Contract	Assignment and License of Patent Agreement
Conclusion date	April 9, 1996
Term	Not specified
Summary	Takara Bio assumed the patent rights and the status of licensor for license contracts covering the LA PCR Method owned by Wayne M. Barnes. In addition to paying Wayne M. Barnes a certain amount at the time of assuming the above-mentioned rights, Takara Bio pays Wayne M. Barnes half of the royalties it receives.

#### b) Scientific instruments

Counterparty	AB SCIEX
Contract	Distributorship Agreement
Conclusion date	April 15, 2011
Term	From April 1, 2011 to March 31, 2013. 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.  Takara Bio is not permitted to sell competing products.

#### 2) Gene medicine business

Counterparty	Indiana University Foundation
Contract	License Agreement
Conclusion date	May 26, 1995
Term	From May 26, 1995, until all the licensed patents have expired.
Summary	Indiana University Foundation granted Takara Bio worldwide exclusive rights for the implementation of a highly efficient gene transduction method using retroviral vectors. In addition to paying Indiana University Foundation a certain amount as an initial license charge, Takara Bio pays Indiana University Foundation a certain running royalty linked to sales. Further, Takara Bio is obliged to pay a certain amount as a milestone payment when it files a New Drug Application (NDA) in order to receive approval for the marketing of a new drug in respective countries. In addition, Takara Bio was obliged to donate a certain amount to Indiana University Foundation for two years. Takara Bio has completed making this donation. In addition, when this contract ends, Takara Bio will transfer the patents acquired by Takara Bio based on this contract with Indiana University Foundation.

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 license charges 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.

Counterparty	MolMed S.p.A
Contract	Master License Agreement
Conclusion date	July 10, 2003
Term	From the conclusion date of the contract to the end of the royalty term. The royalty term refers to whichever is the longest period: the period that the product in question or its manufacture is under patent protection in each country, or 10 years from the initial date of sale in the market of the product in question.
Summary	Takara Bio is conducting research relating to clinical trials of gene therapy for hematological malignancies. MolMed supports these activities and has granted Takara Bio exclusive rights to its patents in Japan and other specified countries. Takara Bio paid MolMed a certain amount in accordance with the conclusion of the contract as a license charge. Also, since then Takara Bio has paid MolMed a total of more than US\$9,000,000 in milestone payments that are due each time Takara Bio files a New Drug Application (NDA) in order to sell a new drug for the first time in a country and when Takara Bio receives approval to sell a new drug for the first time in a country. Also Takara Bio pays MolMed a certain running royalty linked to sales.
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 enzymes (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.

#### 8. Organizational structure of the Takara Bio Group

#### (1) Dependence on a certain group of personnel

Koichi Nakao, the president & CEO, plays an important role, as the chief executive officer, in formulating management strategy and promoting R&D and business development. In order to reduce the dependence of the Group on the president & CEO and to provide him with assistance, the following officers play an important part in promoting their respective operations. Mutsumi Kimura, Executive Vice President, is responsible for business operation as a whole. Makoto Moriguchi, Executive Vice President, is responsible for the Genetic engineering research and the AgriBio business. Kazutoh Takesako, Senior Managing Director, is responsible for the Gene medicine business. (Titles and responsibilities are as of June 27, 2013.)

In order to build a management structure that is not overly dependent on these directors, the Group has strengthened its management organization by introducing an executive officer system, for example. However, the Group is likely to remain highly dependent on these directors for the time being. In these circumstances, if for any reason there were difficulties concerning the running of the Company's operations by these directors, it could affect the Group's business strategy and performance.

#### (2) 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. In addition, a small number of personnel within the Group have experience in clinical development, and the Group is committed to securing these human resources and to conducting in-house training. 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 the Company. In this event, the Group's business strategy and performance could be affected.

#### 9. 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 overridden 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.

#### 10. 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 any health impairment is caused by a drug, medical device, food, or research reagent, cell or gene therapy product used in a clinical trial, or cell therapy product prepared under a doctor's guidance, then the Group may be subject to product liability claims, and this could affect the promotion of the Group's operations and its performance.

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

One example of the potential for product liability risk comes from a clinical research of gene therapy for the serious genetic disease known as Severe Combined Immune Deficiency (SCID). This study was carried out at Hospital Necker-Enfants Malades in France in 2000, where the therapeutic efficacy of gene therapy using the RetroNectin® method developed by the Company was confirmed. The patients with this disease have severe defects in their immune system, forcing them to live in transparent germfree capsules separated from the outside world in order to prevent infections. Nonetheless, many die around the age of ten. The disease is caused by an abnormality of a gene called gamma-C. Therefore, the gamma-C gene was transferred into the hematopoietic stem cells of patients using the RetroNectin® method. Improvement in the immune system was reported in all of the ten or more cases. However, between 2002 and 2007, four of the patients undergoing post-treatment observation were found to have developed leukemia as a side effect. Further, it was reported in December 2007 that one of ten patients undergoing the same treatment in the U.K. had developed leukemia. Nevertheless, retrovirus vectors have been used in a large number of patients (exceeding several hundred) in other diseases, and the incidence of leukemia as a side effect and other safety issues have not been reported. Additionally, the Company and Hospital Necker-Enfants Malades research scientists have concluded that RetroNectin® reagent was not the direct cause of the side effects. Gene therapy is a new and cutting-edge treatment, so it is important to promote development while carefully scrutinizing the results of clinical research. In addition, R&D may not proceed as planned in such cases, for instance, when it is necessary to obtain the informed consent of patients again after the occurrence of unexpected events, such as side effects. This could affect the Group's promotion of operations and its business performance. Furthermore, the negative image produced by these kinds of side effects could have an adverse impact on the reliability of the Group's clinical trials, and could affect the promotion of the Group's operations and its performance.

#### 11. Legal regulations

#### (1) Genetic engineering research business

R&D in the Genetic engineering research 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; and the Group is committed to observing these laws and regulations. In addition, in the production and sale of research reagents, the Company is required to follow relevant legislation, such as the Poisonous and Deleterious Substances Control Law. However, research reagents are not drugs as defined by the Pharmaceutical Affairs 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.

#### (2) Gene medicine business

The relevant laws and regulations such as the Pharmaceutical Affairs Law and the Law Concerning the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms regulate commercialization of the cell and gene therapies that the Company is aiming to accomplish, and the Group intends to comply with such laws and regulations. The relevant laws and regulations, such as the Pharmaceutical Affairs Law, are targeted at securing the quality, effectiveness, and safety of drugs, quasi-drugs, cosmetics, and medical devices, and the trading of these products requires approval or permission from the relevant authorities. At present, it is uncertain whether or not the Group will be able to obtain permission or approval based on the Pharmaceutical Affairs Law for each individual project in which it is carrying out R&D in the Gene medicine business.

In addition, it is possible that the requirement for approval under the Pharmaceutical Affairs Law and the Medical Practitioners Law will extend to new treatments such as cancer immunotherapy. Such a tightening of the regulations, or the introduction of new regulations, could affect the Company's business strategy.

#### (3) 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 performance of the Group could be affected.

Beginning in October 2006, Takara Bio has been marketing and selling all its functional foods through Takara Healthcare, a 100%-owned subsidiary of Takara Holdings. In selling functional foods and materials in bulk, the Company and Takara Healthcare are making every effort to comply with the sales methods based on the Specified Commercial Transaction Law, the Pharmaceutical Affairs Law, Act on Standardization and Proper Labeling of Agricultural and Forest Products, 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 a possibility of violating a provision on mandatory labeling requirements. If any violation occurs, the reliability of the Group could deteriorate, which may adversely affect the Group's business performance.

#### 12. Risks of lawsuits, etc.

As of June 27, 2013, there are no major ongoing lawsuits with third parties relating to the Company'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 performance.

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.

#### 13. Dilution of stock value due to stock option system

The Company operates a stock option system. The extraordinary general meeting of shareholders on September 19, 2003, approved a resolution on the grant of stock options based on the provisions in Articles 280-20, 280-21, and 280-27 of the Commercial Code of Japan. The Company believes that this system is effective in providing the Company's executives and employees with an incentive to improve business performance. However, when the stock options are exercised, there is a possibility that the value per share of the Company's stock will be diluted. Moreover, the Company is discussing whether to continue similar incentive plans in the future in order to secure highly talented human resources. Consequently, when new stock options are granted and exercised in the future, there is a possibility that the value per share of the Company's stock will be diluted.

### 14. Intangible fixed assets related to Clontech Laboratories

Observing the U.S. Financial Accounting Standards Board (FASB) Codification Topic 350 "Intangibles—Goodwill and Other" (formerly FASB Standard Statement No. 142, "Goodwill and Other Intangible Assets"), the Company did not amortize the trademark rights obtained by Clontech Laboratories, a subsidiary of the Company. Looking ahead, the Company intends to determine whether any impairment loss is incurred once every year, as well as whenever an event takes place that suggests the possibility of an impairment loss. As of June 27, 2013, the Company has not incurred any impairment losses. However, if the Company determines that an impairment loss has been incurred, such an event could adversely affect the Group's business performance. With regard to goodwill recognized by Clontech Laboratories, from fiscal 2009, the Company has applied "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" (ASBJ Practical Issues Task Force No. 18, May 17, 2006). Consequently, the Company is amortizing this goodwill amount using the straight-line method over a 20-year period.

## CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED BALANCE SHEET

Takara Bio Inc. and Subsidiaries March 31, 2013

	Millions of Yen		
ASSETS	2013	2012	2013
CURRENT ASSETS:			
Cash and cash equivalents (Note 15)	¥ 6,538	¥ 5,803	\$ 69,553
Marketable securities (Notes 3 and 15)	519	466	5,521
Time deposits (Note 15)	13,728	14,137	146,042
Notes and accounts receivable:			
Trade (Note 15)	5,985	5,548	63,670
Other	98	103	1,042
Allowance for doubtful accounts (Note 15)	(34)	(29)	(361)
Inventories (Note 4)	3,467	3,094	36,882
Deferred tax assets (Note 13)	535	470	5,691
Prepaid expenses and other current assets	299	260	3,180
Total current assets	31,138	29,857	331,255
PROPERTY, PLANT AND EQUIPMENT (Note 6):			
Land	5,618	4,491	59,765
Buildings and structures	8,406	7,930	89,425
Machinery, equipment and vehicles	5,420	5,170	57,659
Tools, furniture and fixtures	4,414	4,114	46,957
Lease assets	33	111	351
Construction in progress	270	53	2,872
Total property, plant and equipment	24,164	21,872	257,063
Accumulated depreciation	(11,967)	(11,329)	(127,308)
Net property, plant and equipment	12,196	10,542	129,744
INVESTMENTS AND OTHER ASSETS:			
Investment securities (Notes 3 and 15)	2	2	21
Goodwill (Note 5)	1,331	1,313	14,159
Long-term prepaid expenses	947	908	10,074
Customer contracts and related relationships		110	
Trademarks	470	426	5,000
Deferred tax assets (Note 13)	35	281	372
Allowance for doubtful accounts		(0)	
Other assets	526	589	5,595
Total investments and other assets	3,313	3,632	35,244
TOTAL	¥ 46,649	¥ 44,032	\$ 496,265

	Millions	of Yen	Thousands of U.S. Dollars (Note 1)
LIABILITIES AND EQUITY	2013	2012	2013
CURRENT LIABILITIES:			
Short-term bank loans (Notes 6 and 15)	¥ 18		\$ 191
Current portion of long-term debt (Notes 6 and 15)	79	¥ 81	840
Notes and accounts payable (Notes 6 and 15):			
Trade	1,605	1,662	17,074
Construction and other	1,148	1,172	12,212
Accrued income taxes (Note 15)	196	121	2,085
Accrued expenses	661	555	7,031
Other current liabilities (Note 16)	267	240	2,840
Total current liabilities	3,977	3,834	42,308
LONG-TERM LIABILITIES:			
Long-term debt (Notes 6 and 15)	277	361	2,946
Liability for retirement benefits (Note 7)	416	1,127	4,425
Deferred tax liabilities (Note 13)	120	90	1,276
Other long-term liabilities (Note 8)	391	205	4,159
Total long-term liabilities	1,206	1,784	12,829
COMMITMENTS AND CONTINGENT LIABILITIES (Notes 14 and 16)  EQUITY (Notes 9, 10, 11 and 19):			
Common stock, authorized, 400,000,000 shares;			
issued, 113,575,600 shares in 2013 and 112,919,600 shares in 2012	9,233	9,069	98,223
Capital surplus	27,160	26,996	288,936
Retained earnings	5,934	4,584	63,127
Accumulated other comprehensive income—			
Foreign currency translation adjustments	(914)	(2,288)	(9,723)
Subtotal	41,414	38,362	440,574
Minority interests	50	51	531
Total equity	41,465	38,413	441,117
TOTAL	¥46,649	¥44,032	\$496,265

## CONSOLIDATED STATEMENT OF INCOME

Takara Bio Inc. and Subsidiaries Year ended March 31, 2013

Year ended March 31, 2013	Millions	of Yen	Thousands of U.S. Dollars (Note 1)
	2013	2012	2013
NET SALES (Note 20)	¥20,564	¥19,578	\$218,765
COST OF SALES (Notes 7 and 14)	9,540	9,194	101,489
Gross profit	11,024	10,383	117,276
SELLING, GENERAL AND			
ADMINISTRATIVE EXPENSES (Notes 7, 12 and 14)	9,332	8,836	99,276
Operating income (Note 20)	1,691	1,547	17,989
OTHER INCOME (EXPENSES):			
Interest income	107	106	1,138
Subsidy income	145	185	1,542
Gain on revision of retirement benefit plan (Note 7)	345		3,670
Foreign exchange loss	(16)	(39)	(170)
Interest expense	(7)	(4)	(74)
Loss on sales and disposals of property, plant and equipment	(41)	(167)	(436)
Other, net	44	34	468
Other income (expenses), net	577	114	6,138
INCOME BEFORE INCOME TAXES AND MINORITY INTERESTS	2,268	1,662	24,127
INCOME DELONE INCOME TAXES AND MINORITE INTERESTS	2,200	1,002	24,127
INCOME TAXES (Note 13):			
Current	587	422	6,244
Deferred	222	209	2,361
Total income taxes	809	631	8,606
NET INCOME BEFORE MINORITY INTERESTS	1,459	1,030	15,521
MINORITY INTERESTS IN NET INCOME	(3)	7	(31)
NET INCOME	¥ 1,462	¥ 1,023	\$ 15,553
			U.S. Dollars
	Yei	n	(Note 1)

	Y	U.S. Dollars (Note 1)	
PER SHARE OF COMMON STOCK (Notes 2.s and 18):			
Basic net income	¥12.94	¥9.06	\$0.13
Diluted net income	12.89		0.13
Cash dividends applicable to the year	1.10	1.00	0.01

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Takara Bio Inc. and Subsidiaries Year ended March 31, 2013

real ended warch 31, 2013	Millions	of Yen	Thousands of U.S. Dollars (Note 1)
	2013	2012	2013
NET INCOME BEFORE MINORITY INTERESTS	¥1,459	¥1,030	\$15,521
OTHER COMPREHENSIVE INCOME (Note 17):			
Foreign currency translation adjustments	1,376	(279)	14,638
COMPREHENSIVE INCOME	¥2,836	¥ 750	\$30,170
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:			
Owners of the parent	¥2,837	¥ 751	\$30,180
Minority interests	(0)	(1)	(0)

See notes to consolidated financial statements.

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Takara Bio Inc. and Subsidiaries Year ended March 31, 2013

	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	Total	Minority Interests	Total Equity
BALANCE, APRIL 1, 2011	282	¥9,068	¥26,995	¥3,561	¥(2,017)	¥37,608	¥11	¥37,620
Stock splits (Note 9)	112,633							
Net income				1,023		1,023		1,023
Exercise of stock options								
(Notes 9 and 10)	4	1	1			2		2
Net change in the year					(271)	(271)	39	(232)
BALANCE, MARCH 31, 2012	112,919	9,069	26,996	4,584	(2,288)	38,362	51	38,413
Net income				1,462		1,462		1,462
Exercise of stock options								
(Notes 9, 10 and 11)	656	164	164			328		328
Cash dividends, ¥1.0 per share				(112)		(112)		(112)
Net change in the year					1,374	1,374	(0)	1,373
BALANCE, MARCH 31, 2013	113,575	¥9,233	¥27,160	¥5,934	¥ (914)	¥41,414	¥50	¥41,465

	Thousands of U.S. Dollars (Note 1)						
				Accumulated Other Comprehensive Income			
	Common Stock	Capital Surplus	Retained Earnings	Foreign Currency Translation Adjustments	Total	Minority Interests	Total Equity
BALANCE, MARCH 31, 2012	\$96,478	\$287,191	\$48,765	\$(24,340)	\$408,106	\$542	\$408,648
Net income			15,553		15,553		15,553
Exercise of stock options							
(Notes 9, 10 and 11)	1,744	1,744			3,489		3,489
Cash dividends, \$0.01 per share			(1,191)		(1,191)		(1,191)
Net change in the year				14,617	14,617	(0)	14,606
BALANCE, MARCH 31, 2013	\$98,223	\$288,936	\$63,127	\$ (9,723)	\$440,574	\$531	\$441,117

## CONSOLIDATED STATEMENT OF CASH FLOWS

Takara Bio Inc. and Subsidiaries Year ended March 31, 2013

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2013	2012	2013
OPERATING ACTIVITIES:			
Income before income taxes and minority interests	¥ 2,268	¥ 1,662	\$ 24,127
Adjustments for:			
Income taxes paid	(512)	(369)	(5,446)
Depreciation and amortization	1,512	1,545	16,085
Provision for retirement benefits	(711)	(4)	(7,563)
Loss on sales and disposals of property, plant and equipment	41	167	436
Changes in assets and liabilities:			
Increase in trade notes and accounts receivables	(290)	(861)	(3,085)
Increase in inventories	(149)	(259)	(1,585)
(Decrease) increase in trade notes and accounts payables	(110)	515	(1,170)
Other, net	178	(29)	1,893
Total adjustments	(41)	704	(436)
Net cash provided by operating activities	2,226	2,366	23,680
INVESTING ACTIVITIES:		(=)	
Payments for time deposits	(21,270)	(7,636)	(226,276)
Proceeds from time deposits	21,756	7,977	231,446
Purchases of marketable securities	(957)	(957)	(10,180)
Proceeds from sales of marketable securities	957	957	10,180
Purchases of property, plant and equipment	(2,341)	(862)	(24,904)
Purchases of other property, plant and equipment	(162)	(149)	(1,723)
Other, net	(61)	139	(648)
Net cash used in investing activities	(2,079)	(531)	(22,117)
FINANCING ACTIVITIES:			
Repayments of long-term debt	(82)	(79)	(872)
Proceeds from issuance of common stock	324		3,446
Cash dividends paid	(111)		(1,180)
Other, net	19	75	202
Net cash provided by (used in) financing activities	149	(4)	1,585
			·
FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH			
AND CASH EQUIVALENTS	437	(74)	4,648
		· · · /	-,
NET INCREASE IN CASH AND CASH EQUIVALENTS	734	1,756	7,808
***		,	,
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	5,803	4,047	61,734
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CASH AND CASH EQUIVALENTS, END OF YEAR	¥ 6,538	¥ 5,803	\$ 69,553

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Takara Bio Inc. and Subsidiaries Year ended March 31, 2013

### O1 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 2012 consolidated financial statements to conform them to the classifications used in 2013.

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 less than a million yen are rounded down to the nearest million yen, except for per share data, stock option exercise price and stock price in Note 10. 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 ¥94 to \$1, the approximate rate of exchange at March 31, 2013. U.S. dollar figures less than a thousand dollars are rounded down to the nearest thousand dollars, except for per share data and stock option exercise prices and stock prices in Note 10. 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.

### 02 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**a. Consolidation**—The consolidated financial statements as of March 31, 2013, include the accounts of the Company and all 10 (10 in 2012) subsidiaries (together, the "Group").

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

The difference of the cost of an acquisition over the fair value of the net assets of the acquired subsidiary at the date of acquisition is recorded as goodwill and amortized on a straight-line basis principally over a period of five years. Goodwill recorded by Clontech Laboratories, Inc., the Company's consolidated subsidiary, is amortized on a straight-line basis over a period of 20 years in accordance with Practical Issues Task Force (PITF) No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements" issued by the Accounting Standards Board of Japan (the "ASBJ") as described in Note 2.b.

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—In May 2006, the ASBJ issued PITF No. 18. PITF No. 18 prescribes: (1) the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances that should in principle be unified for the preparation of the consolidated financial statements; (2) financial statements prepared by foreign subsidiaries in accordance with either International Financial Reporting Standards or the accounting principles generally accepted in the United States of America tentatively may be used for the consolidation process; (3) however, the following items 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 directly recorded in the equity; (c) expensing capitalized development costs of research and development (R&D); (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; and (e) exclusion of minority interests from net income, if included in net income.

c. Business Combinations—In October 2003, the Business
Accounting Council issued a Statement of Opinion, "Accounting
for Business Combinations," and in December 2005, the ASBJ
issued ASBJ Statement No. 7, "Accounting Standard for Business
Divestitures" and ASBJ Guidance No. 10, "Guidance for Accounting
Standard for Business Combinations and Business Divestitures."
The accounting standard for business combinations allowed
companies to apply the pooling of interests method of accounting
only when certain specific criteria are met such that the business
combination is essentially regarded as a uniting-of-interests. For
business combinations that do not meet the uniting-of-interests
criteria, the business combination is considered to be an acquisition
and the purchase method of accounting is required. This standard
also prescribes the accounting for combinations of entities under
common control and for joint ventures.

In December 2008, the ASBJ issued a revised accounting standard for business combinations, ASBJ Statement No. 21, "Accounting Standard for Business Combinations." Major accounting changes under the revised accounting standard are as follows:

(1) The revised standard requires accounting for business combinations only by the purchase method. As a result, the pooling of interests method of accounting is no longer allowed. (2) The previous accounting standard required R&D costs to be charged to income as incurred. Under the revised standard, in-process research and development costs acquired in the business combination are capitalized as an intangible asset. (3) The previous accounting standard provided for a bargain purchase gain (negative

goodwill) to be systematically amortized over a period not exceeding 20 years. Under the revised standard, the acquirer recognizes the bargain purchase gain in profit or loss immediately on the acquisition date after reassessing and confirming that all of the assets acquired and all of the liabilities assumed have been identified after a review of the procedures used in the purchase price allocation. This revised standard was applicable to business combinations undertaken on or after April 1, 2010.

- d. Cash Equivalents—Cash equivalents are short-term investments that are readily convertible into cash and that are exposed to insignificant risk of changes in value. Cash equivalents include time deposits, certificates of deposits, commercial paper, bond funds and trust beneficiary rights, all of which mature or become due within three months of the date of acquisition.
- e. Marketable and Investment Securities—The Group's investment securities consist of marketable and non-marketable available-forsale securities. 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. Non-marketable 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 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 is computed principally by the declining-balance method at rates based on the estimated useful lives of the assets, except that the straight-line method is applied to property, plant and equipment located in the Dragon Genomics Center. Subsidiaries compute depreciation principally by the straight-line method. The range of useful lives is principally from 3 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—Clontech Laboratories, Inc., the Company's consolidated subsidiary located in the United States of America, records goodwill according to Financial Accounting Standards Board (the "FASB") Accounting Standards Codification 350 "Intangibles—Goodwill and Other" (formerly FASB Statement No. 142 "Goodwill and Other Intangible Assets.") Goodwill is tested for impairment at least annually. (see Note 2.a.)
- 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 7.

The Group accounted for the liability for retirement benefits based on the projected benefit obligations and plan assets at the balance sheet date.

The Company implemented a defined contribution pension plan in October 2012, by which the former severance lump-sum payment plan was partly terminated. The Company applied ASBJ Guidance No. 1 "Accounting standard for transfer between retirement benefit plans." The effect of this transfer was to increase income before income taxes and minority interests by ¥345 million (\$3,670 thousand), and was recorded as a "Gain on revision of retirement benefit plan" in the consolidated statement of income for the year ended March 31, 2013.

- **k. Allowance for Doubtful Accounts**—The 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.
- I. Asset Retirement Obligations—In March 2008, the ASBJ published ASBJ Statement No. 18 "Accounting Standard for Asset Retirement Obligations" and ASBJ Guidance No. 21 "Guidance on Accounting Standard for Asset Retirement Obligations." Under this accounting standard, an asset retirement obligation is defined as a legal obligation imposed either by law or contract that results from the acquisition, construction, development and the 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 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.** Research and Development Costs—Research and development costs are charged to income as incurred.
- n. Leases—In March 2007, the ASBJ issued ASBJ Statement
   No.13, "Accounting Standard for Lease Transactions," which revised the previous accounting standard for lease transactions issued in

June 1993. The revised accounting standard for lease transactions was effective for fiscal years beginning on or after April 1, 2008.

Under the previous accounting standard, finance leases that were deemed to transfer ownership of the leased property to the lessee were capitalized. However, other finance leases were permitted to be accounted for as operating lease transactions if certain "as if capitalized" information was disclosed in the note to the lessee's financial statements. The revised accounting standard requires that all finance lease transactions be capitalized by recognizing lease assets and lease obligations in the consolidated balance sheet.

In addition, the revised accounting standard permits leases that existed at the transition date and do not transfer ownership of the leased property to the lessee to continue to be accounted for as operating lease transactions.

The Company and domestic subsidiaries applied the revised accounting standard effective April 1, 2008. Lease assets related to finance lease transactions without title transfer are depreciated on a straight-line basis over the leased periods as their useful lives and with no residual value. In addition, the Company continues to account for leases that existed at the transition date and do not transfer ownership of the leased property to the lessee as operating lease transactions.

All other leases are accounted for as operating leases.

- 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 tax laws 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 balance sheet date. 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, such as foreign currency forward contracts as a means of hedging exposure to foreign currency 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 purchases and payments of 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 available to common shareholders by the weighted-average number of common shares outstanding for the period, retroactively adjusted for stock splits.

Diluted net income per share reflects the potential dilution that could occur if securities were exercised or converted into common stock. Diluted net income per share of common stock assumes full exercise of outstanding warrants.

- t. Accounting Changes and Error Corrections—In December 2009, the ASBJ issued ASBJ Statement No. 24, "Accounting Standard for Accounting Changes and Error Corrections" and ASBJ Guidance No. 24, "Guidance on Accounting Standard for Accounting Changes and Error Corrections." Accounting treatments under this standard and guidance are as follows:
  - (1) Changes in Accounting Policies When a new accounting policy is applied following revision of an accounting standard, the new policy is applied retrospectively unless the revised accounting standards include specific transitional provisions, in which case the entity shall comply with the specific transitional provisions.
  - (2) Changes in Presentation When the presentation of financial statements is changed, prior-period financial statements are reclassified in accordance with the new presentation.
  - (3) Changes in Accounting Estimates A change in an accounting estimate is accounted for in the period of the change if the change affects that period only, and is accounted for prospectively if the change affects both the period of the change and future periods.
  - (4) Corrections of Prior-Period Errors When an error in prior-period financial statements is discovered, those statements are restated.

### u. New Accounting Pronouncements

Accounting Standard for Retirement Benefits—On May 17, 2012, the ASBJ issued ASBJ Statement No. 26, "Accounting Standard for Retirement Benefits" and ASBJ Guidance No. 25, "Guidance on Accounting Standard for Retirement Benefits," which replaced the Accounting Standard for Retirement Benefits that had been issued by the Business Accounting Council in 1998 with an effective date of April 1, 2000, and the other related practical guidance, and followed by partial amendments from time to time through 2009. Major changes are as follows:

(a) Treatment in the balance sheet

Under the current requirements, actuarial gains and losses and past service costs that are yet to be recognized in profit or loss are not recognized in the balance sheet, and the difference between retirement benefit obligations and plan assets (hereinafter, "deficit or surplus"), adjusted by such unrecognized amounts, is recognized as a liability or asset.

Under the revised accounting standard, actuarial gains and losses and past service costs that are yet to be recognized in profit or loss shall be recognized within equity (accumulated other comprehensive income), after adjusting for tax effects, and any resulting deficit or surplus shall be recognized as a liability (liability for retirement benefits) or asset (asset for retirement benefits).

(b) Treatment in the statement of income and the statement of comprehensive income

The revised accounting standard does not change how to recognize actuarial gains and losses and past service costs in profit or loss. Those amounts would be recognized in profit or loss over a certain period no longer than the expected average remaining working lives of the employees. However, actuarial gains and losses and past service costs that arose in the current period and have not yet been recognized in profit or loss shall be included in other comprehensive income, and actuarial gains and losses and past service costs that were recognized in other comprehensive income in prior periods and then recognized in profit or loss in the current period shall be treated as reclassification adjustments.

(c) Amendments relating to the method of attributing expected benefit to periods and relating to the discount rate and expected future salary increases

The revised accounting standard also made certain amendments relating to the method of attributing expected benefit to periods and relating to the discount rate and expected future salary increases.

This accounting standard and the guidance for (a) and (b) above are effective for the end of annual periods beginning on or after April 1, 2013, and for (c) above are effective for the beginning of annual periods beginning on or after April 1, 2014, or for the beginning of annual periods beginning on or after April 1, 2015, subject to certain disclosure in March 2015, both with earlier application being permitted from the beginning of annual periods beginning on or after April 1, 2013. However, no retrospective application of this accounting standard to consolidated financial statements in prior periods is required.

The Company expects to apply the revised accounting standard for (a) and (b) above from the end of the annual period beginning on April 1, 2013, and for (c) above from the beginning of the annual period beginning on April 1, 2014, and is in the process of measuring the effects of applying the revised accounting standard in future applicable periods.

## 03 MARKETABLE AND INVESTMENT SECURITIES

Marketable and investment securities as of March 31, 2013 and 2012, consisted of the following:

	Millions	Thousands of U.S. Dollars	
	2013	2012	2013
Current—			
Certificates of deposits	¥519	¥466	\$5,521
Non-current—			
Non-marketable equity securities	¥ 2	¥ 2	\$ 21

## 04 INVENTORIES

Inventories at March 31, 2013 and 2012, consisted of the following:

	Millions	Thousands of U.S. Dollars	
	2013	2012	2013
Finished products and merchandise	¥2,518	¥2,209	\$26,787
Work in process	112	157	1,191
Raw materials and supplies	836	727	8,893
Total	¥3,467	¥3,094	\$36,882

## 05 GOODWILL

Goodwill at March 31, 2013 and 2012, consisted of the following:

	Million	Thousands of U.S. Dollars	
	2013	2012	2013
Goodwill on purchase of a specific business	¥1,317	¥1,276	\$14,010
Goodwill arising on consolidation	13	37	138
Total	¥1,331	¥1,313	\$14,159

## O6 SHORT-TERM BANK LOANS AND LONG-TERM DEBT

Short-term bank loans consisted of term loans with interest at annual rates ranging from 0% to 9.45% at March 31, 2013. Long-term debt at March 31, 2013 and 2012, consisted of the following:

	Million	Thousands of U.S. Dollars	
	2013	2012	2013
Loans principally from banks and the local government,			
due serially to January 2022 with interest rates ranging from			
0% to 11.00% in 2013 and 0% to 9.50% in 2012:			
Collateralized	¥180	¥197	\$1,914
Unsecured	157	196	1,670
Obligation under finance leases	18	49	191
Total	356	443	3,787
Less current portion	79	81	840
Long-term debt, less current portion	¥277	¥361	\$2,946

Annual maturities of long-term debt as of March 31, 2013, for the next five years and thereafter were as follows:

Years Ending March 31	Millions of Yen	Thousands of U.S. Dollars
2014	¥ 79	\$ 840
2015	48	510
2016	48	510
2017	48	510
2018	48	510
2019 and thereafter	82	872
Total	¥356	\$3,787

At March 31, 2013, buildings and structures of ¥352 million (\$3,744 thousand); machinery, equipment and vehicles of ¥1 million (\$10 thousand); and land of ¥250 million (\$2,659 thousand) were pledged as collateral for long-term debt (including current portion of long-term debt) of ¥180 million (\$1,914 thousand).

### 07 RETIREMENT AND PENSION PLANS

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

The Company and its subsidiaries have lump-sum payment plans and defined benefit corporate pension plans. The Company implemented a defined contribution pension plan in October 2012, by which the former severance lump-sum payment plan was partly terminated, and applied ASBJ Guidance No. 1 "Accounting standard for transfer between retirement benefit plans." As a result of this transfer, the Company has lump-sum payment plans, defined benefit corporate pension plans and defined contribution pension plans. Under the lump-sum payment plans and defined benefit corporate pension 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. In most circumstances, if the termination is involuntary, caused by retirement at the mandatory retirement age or caused by death, employees are entitled to greater payments than in the case of voluntary termination.

In addition, the Company has non-contributory trusteed pension plans covering all employees. Under the plans, employees terminating their employment are, in most circumstances, entitled to pension payments based on their rates of pay at the time of termination and length of service.

The liability for employees' retirement benefits at March 31, 2013 and 2012, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars	
	2013	2012	2013	
Projected benefit obligation	¥ 681	¥1,038	\$ 7,244	
Fair value of plan assets	(431)	(367)	(4,585)	
Unrecognized actuarial gain	(161)	(236)	(1,712)	
Unrecognized prior service cost	214	599	2,276	
Prepaid pension cost	113	93	1,202	
Net liability	¥ 416	¥1,127	\$ 4,425	

The effect of the transfer mentioned above at March 31, 2013 was as follows:

	Millions of Yen	Thousands of U.S. Dollars
Decrease in projected benefit obligation	¥(423)	\$(4,500)
Unrecognized actuarial loss	48	510
Unrecognized prior service cost	(338)	(3,595)
Decrease in liability for employees' retirement benefits	¥(713)	\$(7,585)

The amount of assets to be transferred to the defined contribution pension plan was ¥368 million (\$3,914 thousand), which is scheduled to be transferred over a period of four years. The amount of assets that had not been transferred was ¥270 million (\$2,872 thousand), and the amount was recorded as "Notes and accounts payable - Construction and other" and "Other long-term liabilities" in the consolidated balance sheet as of March 31, 2013.

The components of net periodic benefit costs for the years ended March 31, 2013 and 2012, were as follows:

	Million	Millions of Yen	
	2013	2012	2013
Service cost	¥ 67	¥ 74	\$ 712
Interest cost	13	14	138
Expected return on plan assets	(7)	(7)	(74)
Recognized actuarial loss	24	20	255
Amortization of prior service cost	(46)	(66)	(489)
Contributions paid to the defined contribution pension plan	37	21	393
Net periodic benefit costs	¥ 89	¥ 57	\$ 946

The effect of the transfer mentioned above was to increase income before income taxes and minority interests by ¥345 million (\$3,670 thousand) and was recorded as gain on revision of retirement benefit plan in the consolidated statement of income for the year ended March 31, 2013.

Assumptions used for the years ended March 31, 2013 and 2012, were set forth as follows:

	2013	2012
Discount rate	1.6%	1.6%
Expected rate of return on plan assets	2.0%	2.0%
Recognition period of actuarial gain/loss	10 years	10 years
Amortization period of prior service cost	10 years	10 years

### 08 ASSET RETIREMENT OBLIGATIONS

The changes in asset retirement obligations for the years ended March 31, 2013 and 2012, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2013	2012	2013
Balance at beginning of year	¥32	¥ 93	\$340
Additional provisions associated with the acquisition of property,			
plant and equipment	1		10
Reduction associated with settlement of asset retirement obligations		(82)	
Revisions in estimated timing and cash flows		20	
Reconciliation associated with passage of time	0	0	0
Balance at end of year	¥34	¥ 32	\$361

Revisions in estimated timing and cash flows were due to changes in estimated timing and amount of the asset retirement obligations, which result from a return of rented land.

### 09 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 such as (1) having the Board of Directors, (2) having independent auditors, (3) having an Audit & Supervisory Board, and (4) the term of service of the directors is prescribed as one year rather than two years of normal 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 cannot do so because it 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 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.

On April 1, 2011, the Company made a four hundred-for-one stock split of the Company's common stock and issued 112,633,311 shares to the shareholders of record on March 31, 2011, based on the resolution of the Board of Directors' meeting held on February 15, 2011.

For the year ended March 31, 2013, the Company issued 656,000 shares of common stock upon exercise of stock options at the price of  $\pm$ 500 ( $\pm$ 5) per share. The amount of  $\pm$ 164 million ( $\pm$ 1,744 thousand) was credited to common stock and the remaining amount of  $\pm$ 164 million ( $\pm$ 1,744 thousand) was credited to additional paid-in capital.

## 10 STOCK OPTION

Stock Option	Persons Granted	Number of Options Granted	Date of Grant	Exercise Price	Exercise Period
The First Charle Outline	8 directors	2 400 000 abarras	September	¥500	From September 20, 2005
The First Stock Option	273 employees	3,400,000 shares	19, 2003	(\$5)	to September 20, 2013
	8 directors				
	3 Audit & Supervisory				
	Board members		September	¥500	From April 1, 2004
The Second Stock Option	120 employees	1,288,000 shares	19, 2003	(\$5)	to September 20, 2013
	3 directors		May 17,	¥500	From September 20, 2005
The Third Stock Option	28 employees	200,000 shares	2004	(\$5)	to September 20, 2013
	9 directors				
	3 Audit & Supervisory				
	Board members		May 17,	¥500	From April 1, 2004
The Fourth Stock Option	8 employees	312,000 shares	2004	(\$5)	to September 20, 2013

The stock option activity is as follows:

	Shares			
	The First Stock Option	The Second Stock Option	The Third Stock Option	The Fourth Stock Option
For the year ended March 31, 2013				
Non-vested				
March 31, 2012—Outstanding				
Granted				
Canceled				
Vested				
March 31, 2013—Outstanding				
Vested				
March 31, 2012—Outstanding	1,412,000	572,000	44,000	156,000
Vested				
Exercised	568,000	76,000	12,000	
Canceled	16,000	8,000		
March 31, 2013—Outstanding	828,000	488,000	32,000	156,000
Exercise price	¥500	¥500	¥500	¥500
	(\$5.31)	(\$5.31)	(\$5.31)	(\$5.31)
Average stock price at exercise	¥1,077	¥1,269	¥872	
	(\$11.45)	(\$13.50)	(\$9.27)	

## 11 RELATED PARTY DISCLOSURES

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

In connection with the stock option plans as described in Note 10, the Company issued to directors of the Company and its subsidiary

104,000 shares of common stock upon exercise of 26 stock options at the price of ¥500 (\$5) per share. The total transaction amount for the year ended March 31, 2013, was ¥52 million (\$553 thousand).

## 12 RESEARCH AND DEVELOPMENT COSTS

Research and development costs charged to income were ¥2,715 million (\$28,882 thousand) and ¥2,658 million for the years ended March 31, 2013 and 2012, respectively.

## 13 INCOME TAXES

The Company and its domestic subsidiaries are subject to Japanese national and local income taxes, which, in the aggregate, resulted in normal effective statutory tax rates of approximately 38% and

40% for the years ended March 31, 2013 and 2012, respectively. Overseas 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, 2013 and 2012, are as follows:

	Millions	Millions of Yen	
	2013	2012	2013
Current deferred tax assets:			
Inventories	¥175	¥158	\$1,861
Accrued bonuses	66	67	702
Unrealized profit on sales of inventories	144	139	1,531
Other	164	118	1,744
Less valuation allowance	(13)	(9)	(138)
Total	¥538	¥473	\$5,723
Current deferred tax liabilities	¥ 3	¥ 3	\$ 31
Net current deferred tax assets	¥535	¥470	\$5,691

	Millions of Yen		Thousands of U.S. Dollars	
	2013	2012	2013	
Non-current deferred tax assets:				
Retirement benefits	¥ 150	¥ 397	\$ 1,595	
Depreciation	55	61	585	
Impairment loss	43	43	457	
Tax loss carryforwards	222	234	2,361	
Loss on disposals of long-term prepaid expenses	48	75	510	
Other	126	74	1,340	
Less valuation allowance	(261)	(242)	(2,776)	
Total	¥ 385	¥ 643	\$ 4,095	
Non-current deferred tax liabilities:				
Goodwill	¥ 179	¥ 196	\$ 1,904	
Undistributed profit of foreign subsidiaries	244	218	2,595	
Other	47	38	500	
Total	¥ 471	¥ 453	\$ 5,010	
Net non-current deferred tax assets	¥ 35	¥ 281	\$ 372	
Net non-current deferred tax liabilities	¥ 120	¥ 90	\$ 1,276	

A reconciliation between the normal effective statutory tax rates and the actual effective tax rates reflected in the accompanying consolidated statements of income for the years ended March 31, 2013 and 2012, was as follows:

	2013	2012
Normal effective statutory tax rate in Japan	38.0%	40.0%
Expenses not deductible for income tax purposes	0.4	0.5
Valuation allowance	1.0	(1.1)
Per capita rate of local tax	0.6	0.8
Tax rate difference of subsidiaries	(7.9)	(13.1)
Elimination in consolidation	(1.1)	0.9
Tax credit	(2.5)	(2.2)
Goodwill depreciation	2.0	3.0
Undistributed profit of foreign subsidiaries	1.1	3.4
Effect of tax rate change		6.4
Foreign withholding tax	4.5	
Other–net	(0.4)	(0.6)
Actual effective tax rate	35.7%	38.0%

On December 2, 2011, new tax reform laws were enacted in Japan, which changed the normal effective statutory tax rate from approximately 40% to 38% effective for fiscal years beginning on or after April 1, 2012 through March 31, 2015, and to 35% afterwards.

At March 31, 2013, certain subsidiaries have tax loss carryforwards aggregating approximately ¥520 million (\$5,531 thousand), which are available to be offset against taxable income of such subsidiaries in future years. These tax loss carryforwards, if not utilized, will expire as follows:

Year Ending March 31	Millions of Yen	Thousands of U.S. Dollars
2014	¥ 63	\$ 670
2015	2	21
2018	197	2,095
2019	106	1,127
2020	89	946
2022	60	638
Total	¥520	\$5,531

## 14 LEASES

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

Total rental expense for the years ended March 31, 2013 and 2012, was ¥281 million (\$2,989 thousand) and ¥283 million, respectively, including ¥3 million (\$31 thousand) and ¥3 million of lease payments under finance leases, respectively.

ASBJ Statement No. 13, "Accounting Standard for Lease Transactions," requires that all finance lease transactions be capitalized to recognize lease assets and lease obligations in the balance sheet.

However, ASBJ Statement No. 13 permits leases without ownership transfer of the leased property to the lessee whose lease inception was before March 31, 2008, to be accounted for as operating lease transactions if certain "as if capitalized" information is disclosed in the note to the financial statements. The Company and its domestic subsidiaries applied ASBJ Statement No. 13 effective April 1, 2008, and accounted for such leases as operating lease transactions. Pro forma information of leased property whose lease inception was before March 31, 2008, was as follows:

	Machinery and Vehicles					
	Million	s of Yen	Thousands of U.S. Dollars			
	2013	2012	2013			
Acquisition cost	¥24	¥24	\$255			
Accumulated depreciation	22	18	234			
Net leased property	¥ 2	¥ 5	\$ 21			

Obligations under finance leases as of March 31, 2013 and 2012, were as follows:

	Millions	of Yen	Thousands of U.S. Dollars	
	2013	2012	2013	
Due within one year	¥2	¥3	\$21	
Due after one year		2		
Total	¥2	¥5	\$21	

The amount of obligations under finance leases includes the imputed interest expense portion.

The minimum rental commitments under noncancelable operating leases at March 31, 2013, were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Due within one year	¥137	\$ 1,457
Due after one year	811	8,627
Total	¥948	\$10,085

### 15 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 exchange 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-tomaturity securities, are exposed to the issuer's credit risk.

Payment terms of payables, such as trade notes and trade accounts, are almost less than 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 is hedged by foreign currency contracts as noted above.

Maturities of bank loans are less than 10 years after the balance sheet date.

Derivatives mainly include forward foreign currency contracts and non-deliverable forwards, which are used to hedge foreign exchange risk associated with certain assets and liabilities denominated in foreign currencies. Please see Note 16 for more detail 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 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 securities, the Group manages exposure to credit risk by limiting investments to high credit rated bonds in accordance with its internal guidelines.

Because the counterparties to derivative transactions are limited to major international financial institutions, the Company does not anticipate any losses arising from credit risk.

### Market risk management

#### (foreign exchange risk and interest rate 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 forward foreign currency contracts.

Since interest rates for loans are fixed, there is no market risk from changes in interest rates.

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 Company 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 treasury 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

Match 31, 2013         Carryang (Cash and cash equivalents)         Y 6,538 (Sas) (S	(a) Fair value of financial instruments		Millions of Yen		
Time deposits   13,728   13,	March 31, 2013			Unrealized Gain/ Loss	
Notes and accounts receivable-trade   5,985   5,985   1,000	Cash and cash equivalents	¥ 6,538	¥ 6,538		
Allowance for doubtful accounts   34   34   34   34   34   34   34   3	Time deposits	13,728	13,728		
Marketable securities         519         519           Total         ¥26,736         ¥26,736         ¥26,736           Short-term bank loans         ¥18         M18         Y18           Notes and accounts payable-trade         1,605         1,605         ¥0           Notes and accounts payable-Construction and other         1,148         1,148         1,148           Accrued income taxes         196         196         196         196           Long-term borrowings         273         3274         (7           Total         ¥3,307         ¥3,305         ¥7           Perhatives (*)         ***<	Notes and accounts receivable–trade	5,985	5,985		
Total	Allowance for doubtful accounts	(34)	(34)		
Notes and accounts payable—trade	Marketable securities	519	519		
Notes and accounts payable-trade	Total	¥26,736	¥26,736		
Notes and accounts payable-trade					
Current portion of long-term borrowings         65         \$(5)         \$(7)           Notes and accounts payable-Construction and other         1,148         1,141 <td< td=""><td>Short-term bank loans</td><td>¥18</td><td>¥18</td><td></td></td<>	Short-term bank loans	¥18	¥18		
Notes and accounts payable—Construction and other   1,148	Notes and accounts payable-trade	1,605	1,605		
Accured income taxes         1966         1976<		65	65	¥(0)	
Long-term borrowings         273         274         (1           Total         ¥ 3,307         ¥ 3,305         ¥ 2           Derivatives (*)         ¥ 2         ¥ 2         ¥ 2           Cass and cash equivalents         (Cash and cash equivalents         9 5,803         ¥ 5,803         Y 5,803           Time deposits         14,137         14,132         14,132 <td< td=""><td>Notes and accounts payable–Construction and other</td><td>1,148</td><td>1,148</td><td></td></td<>	Notes and accounts payable–Construction and other	1,148	1,148		
Total	Accrued income taxes	196	196		
Derivatives (*)         ¥         X         Companies         PS 4,803         Companies         Companies         Fail Value         Companies         X	Long-term borrowings	273	274	(1)	
March 31, 2012         Adminute of Pair Value         Interest of Loss           Cash and cash equivalents         ¥ 5,803         ¥ 5,803           Time deposits         14,137         14,137           Notes and accounts receivable-trade         5,548         5,548           Allowance for doubtful accounts         (29)         (29)           Marketable securities         466         466           Total         ¥ 25,927         ¥ 25,927           Notes and accounts payable-trade         ¥ 1,662         ¥ 1,662           Current portion of long-term borrowings         58         58         ¥           Notes and accounts payable-construction and other         1,172 <td< td=""><td>Total</td><td>¥ 3,307</td><td>¥ 3,305</td><td>¥(1)</td></td<>	Total	¥ 3,307	¥ 3,305	¥(1)	
Marcin 31, 2012         Carrying August 1         Carrying Carrying August 2         Unrealized Gain August 2           Cash and cash equivalents         \$ 5,803         \$ 5,803         \$ 14,137         14,121         14,121         14,121         14,122         14,122         14,	Derivatives (*)	¥ 2	¥ 2		
March 31, 2012         Amount         Feir Value         Los           Cash and cash equivalents         ¥ 5,803         ¥ 5,803         Y 5,803           Time deposits         14,137         14,137         14,137           Notes and accounts receivable–trade         5,548         5,548           Allowance for doubtful accounts         (29)         (29)           Marketable securities         466         466           Total         ¥ 25,927         ¥ 25,927           Notes and accounts payable–trade         ¥ 1,662         ¥ 1,662         ¥ 1,662           Current portion of long-term borrowings         58         58         ¥           Notes and accounts payable–construction and other         1,172         1,172         1,172           Accrued income taxes         335         333         1           Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ 0,3         ¥ 0,332         ¥           Perivatives (*)         ¥ 0,3         ¥ 0,332         ¥           Cash and cash equivalents         \$ 69,553         \$ 69,553         \$ 69,553           Time deposits         146,042         146,042         146,042         146,042         146,042         146,042			Millions of Yen		
Time deposits         14,137         14,137         14,137           Notes and accounts receivable—trade         5,548         5,548         466           Allowance for doubtful accounts         299         (29)         466           Marketable securities         466         466         466         466           Total         ¥25,927         ¥25,927         ¥25,927         ¥25,927         Y25,927	March 31, 2012		Fair Value	Unrealized Gain/ Loss	
Time deposits         14,137         14,137         14,137           Notes and accounts receivable—trade         5,548         5,548         5,548           Allowance for doubtful accounts         (29)         (29)           Marketable securities         466         466           Total         ¥25,927         ¥25,927           Notes and accounts payable—trade         \$1,662         \$1,662           Current portion of long-term borrowings         58         58         \$4           Notes and accounts payable—construction and other         1,172         1,172         1,172           Accrued income taxes         121         121         121           Long-term borrowings         335         333         **           Total         \$3,350         \$3,348         \$*           Derivatives (*)         \$4         3,350         \$\$3,348         \$*           Cash and cash equivalents         \$69,553		¥ 5.803	¥ 5.803		
Notes and accounts receivable—trade         5,548         5,548         Allowance for doubtful accounts         29         C29         C20         C20 <td></td> <td></td> <td>,</td> <td></td>			,		
Allowance for doubtful accounts   466   466   701   702					
Marketable securities         466         466           Total         ¥25,927         ¥25,927           Notes and accounts payable—trade         ¥ 1,662         ¥ 1,662           Current portion of long-term borrowings         58         58         ¥           Notes and accounts payable—construction and other         1,172		· ·	,		
Notes and accounts payable—trade					
Current portion of long-term borrowings         58         58         44           Notes and accounts payable–construction and other         1,172         1,172         1           Accrued income taxes         121         121         121           Long-term borrowings         335         333         333           Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ (3)         ¥ (3)         ¥           March 31, 2013         Carrying Amount         Ramount         Fair Value         Unrealized Gail           Cash and cash equivalents         \$ 69,553         \$ 69,653         \$ 69,553         \$ 69,553         \$ 69,553         \$ 69,553	Total	¥25,927	¥25,927		
Current portion of long-term borrowings         58         58         44           Notes and accounts payable–construction and other         1,172         1,172         1           Accrued income taxes         121         121         121           Long-term borrowings         335         333         333           Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ (3)         ¥ (3)         ¥           March 31, 2013         Carrying Amount         Ramount         Fair Value         Unrealized Gail           Cash and cash equivalents         \$ 69,553	No.	V 1.000	V 1 660		
Notes and accounts payable–construction and other         1,172         1,172           Accrued income taxes         121         121           Long-term borrowings         335         333           Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ (3)         ¥ (3)         Y           Carrying Amount         Total Total Total Total Total Total Total         Total					
Accrued income taxes         121         121           Long-term borrowings         335         333           Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ (3)         ¥ (3)         Y         X           March 31, 2013         Carrying Amount         Fair Value         Unrealized Gai Amount         Gai Value         Unrealized Gai Value         Gai Value         Unrealized Gai Value         Gai Value <td ro<="" td=""><td></td><td></td><td></td><td>¥O</td></td>	<td></td> <td></td> <td></td> <td>¥O</td>				¥O
Long-term borrowings         335         333           Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ (3)         ¥ (3)         Y         3           March 31, 2013         Carrying Annount         Fair Value         Unrealized Gai Loss           Cash and cash equivalents         \$ 69,553         \$ 69,553         \$ 69,553         \$ 146,042         \$ 146,04					
Total         ¥ 3,350         ¥ 3,348         ¥           Derivatives (*)         ¥ (3)         ¥ (3)         Y           March 31, 2013         Carrying Amount         Fair Value         Unrealized Gai Amount           Cash and cash equivalents         \$ 69,553         \$ 69,553         Time deposits         146,042         146,042         Notes and accounts receivable—trade         63,670         63,670         Allowance for doubtful accounts         (361)         (361)         Marketable securities         5,521         5,521         Total         \$284,425         \$284,425         Short-term bank loans         \$ 191         \$ 191         Notes and accounts payable—trade         17,074         17,074         17,074         Current portion of long-term borrowings         691         691         691         Notes and accounts payable—Construction and other         12,212         12,212         12,212         Accrued income taxes         2,085         2,085         2,085         2,085         2,085         2,085         2,085         2,0				1	
Derivatives (*)         ¥ (3)         ¥ (3)         Y (4)				1	
March 31, 2013         Thousands of U.S. Dollars           Cash and cash equivalents         \$ 69,553         \$ 69,553           Time deposits         146,042         146,042           Notes and accounts receivable–trade         63,670         63,670           Allowance for doubtful accounts         (361)         (361)           Marketable securities         5,521         5,521           Total         \$284,425         \$284,425           Short-term bank loans         \$ 191         \$ 191           Notes and accounts payable–trade         17,074         17,074           Current portion of long-term borrowings         691         691           Notes and accounts payable–Construction and other         12,212         12,212           Accrued income taxes         2,085         2,085           Long-term borrowings         2,904         2,914         \$(1)		· · · · · · · · · · · · · · · · · · ·		¥1	
March 31, 2013         Carrying Amount         Fair Value         Unrealized Gai Loss           Cash and cash equivalents         \$ 69,553         \$ 69,553           Time deposits         146,042         146,042           Notes and accounts receivable—trade         63,670         63,670           Allowance for doubtful accounts         (361)         (361)           Marketable securities         5,521         5,521           Total         \$284,425         \$284,425           Short-term bank loans         \$ 191         \$ 191           Notes and accounts payable—trade         17,074         17,074           Current portion of long-term borrowings         691         691           Notes and accounts payable—Construction and other         12,212         12,212           Accrued income taxes         2,085         2,085           Long-term borrowings         2,904         2,914         \$(10)	Derivatives (*)				
Cash and cash equivalents       \$ 69,553       \$ 69,553         Time deposits       146,042       146,042         Notes and accounts receivable—trade       63,670       63,670         Allowance for doubtful accounts       (361)       (361)         Marketable securities       5,521       5,521         Total       \$284,425       \$284,425         Short-term bank loans       \$ 191       \$ 191         Notes and accounts payable—trade       17,074       17,074         Current portion of long-term borrowings       691       691         Notes and accounts payable—Construction and other       12,212       12,212         Accrued income taxes       2,085       2,085         Long-term borrowings       2,904       2,914       \$(10)			ousands of U.S. Dolla	Unrealized Gain/	
Time deposits       146,042       146,042         Notes and accounts receivable—trade       63,670       63,670         Allowance for doubtful accounts       (361)       (361)         Marketable securities       5,521       5,521         Total       \$284,425       \$284,425         Short-term bank loans       \$ 191       \$ 191         Notes and accounts payable—trade       17,074       17,074         Current portion of long-term borrowings       691       691         Notes and accounts payable—Construction and other       12,212       12,212         Accrued income taxes       2,085       2,085         Long-term borrowings       2,904       2,914       \$(10)				Loss	
Notes and accounts receivable—trade       63,670       63,670         Allowance for doubtful accounts       (361)       (361)         Marketable securities       5,521       5,521         Total       \$284,425       \$284,425         Short-term bank loans       \$ 191       \$ 191         Notes and accounts payable—trade       17,074       17,074         Current portion of long-term borrowings       691       691         Notes and accounts payable—Construction and other       12,212       12,212         Accrued income taxes       2,085       2,085         Long-term borrowings       2,904       2,914       \$(100)	•				
Allowance for doubtful accounts       (361)       (361)         Marketable securities       5,521       5,521         Total       \$284,425       \$284,425         Short-term bank loans       \$ 191       \$ 191         Notes and accounts payable–trade       17,074       17,074         Current portion of long-term borrowings       691       691         Notes and accounts payable–Construction and other       12,212       12,212         Accrued income taxes       2,085       2,085         Long-term borrowings       2,904       2,914       \$(100)	·	· ·	•		
Marketable securities         5,521         5,521           Total         \$284,425         \$284,425           Short-term bank loans         \$ 191         \$ 191           Notes and accounts payable—trade         17,074         17,074           Current portion of long-term borrowings         691         691           Notes and accounts payable—Construction and other         12,212         12,212           Accrued income taxes         2,085         2,085           Long-term borrowings         2,904         2,914         \$(10)					
Total         \$284,425         \$284,425           Short-term bank loans         \$ 191         \$ 191           Notes and accounts payable—trade         17,074         17,074           Current portion of long-term borrowings         691         691           Notes and accounts payable—Construction and other         12,212         12,212           Accrued income taxes         2,085         2,085           Long-term borrowings         2,904         2,914         \$(10)					
Short-term bank loans \$ 191 \$ 191  Notes and accounts payable—trade \$ 17,074 \$ 17,074  Current portion of long-term borrowings \$ 691 \$ 691  Notes and accounts payable—Construction and other \$ 12,212 \$ 12,212  Accrued income taxes \$ 2,085 \$ 2,085  Long-term borrowings \$ 2,904 \$ 2,914 \$ \$(10)					
Notes and accounts payable—trade  Current portion of long-term borrowings  Notes and accounts payable—Construction and other  Accrued income taxes  Long-term borrowings  17,074 691 691 12,212 12,212 2,085 2,085 2,085 2,904 2,914 \$(10)	lotal	\$284,425	\$284,425		
Notes and accounts payable—trade  Current portion of long-term borrowings  Notes and accounts payable—Construction and other  Accrued income taxes  Long-term borrowings  17,074 691 691 12,212 12,212 2,085 2,085 2,085 2,904 2,914 \$(10)	Short-term bank loans	\$ 191	\$ 191		
Current portion of long-term borrowings691691Notes and accounts payable—Construction and other12,21212,212Accrued income taxes2,0852,085Long-term borrowings2,9042,914\$(10)			-		
Notes and accounts payable—Construction and other  12,212 12,212 Accrued income taxes 2,085 2,085 Long-term borrowings 2,904 2,914 \$(10)					
Accrued income taxes         2,085         2,085           Long-term borrowings         2,904         2,914         \$(10)					
Long-term borrowings <b>2,904 2,914 \$(1</b>					
				\$(10)	
				\$(10)	
Derivatives (*) \$ 21 \$ 21				Ψ(10)	

Note: \*Assets and liabilities arising from derivative transactions are shown at net value with amount in parentheses representing the net liability position.

## Cash and cash equivalent, time deposits, and notes and accounts receivables – 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 carrying values of marketable securities approximate fair value because of their short maturities.

# 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.

# Short-term bank loans, current portion of long-term borrowings and long-term borrowings

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

#### **Derivatives**

The information of the fair value for derivatives is included in Note 16.

### (b) Financial instruments whose fair value cannot be reliably determined

	Million	Thousands of U.S. Dollars	
	2013	2012	2013
Non-marketable equity securities	<b>¥2</b> ¥2		\$21
Total	¥2	¥2	\$21

Since non-marketable 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

	Due in One Year or Less				
	Millio	ns of Yen	Thousands of U.S. Dollars		
	2013	2012	2013		
Cash and cash equivalents	¥ 6,538	¥ 5,803	\$ 69,553		
Time deposits	13,728	14,137	146,042		
Notes and accounts receivable-trade	5,985	5,548	63,670		
Marketable securities	519	466	5,521		
Total	¥26,770	¥25,954	\$284,787		

Please see Note 6 for annual maturities of long-term debt and Note 14 for obligations under finance leases, respectively.

## 16 DERIVATIVES

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

All derivative transactions are entered into to hedge foreign currency exposures incorporated within its 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.

Foreign currency forward contracts that qualify for hedge accounting are excluded from the disclosure of market value information.

## Derivative Transactions to Which Hedge Accounting is Not Applied

Derivative Transactions to Which Hedge Accounting is Not Applied	Millions of Yen				
At March 31, 2013	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss	
Foreign currency forward contracts:  Buying EUR  USD  STG  CNY	¥ 33 218 2 181		¥(0) (0) (0) (0)	¥(0) (0) (0)	
Selling EUR USD CNY	64 46 25		2 0 0	2 0 0	
Non deliverable forward Buying WON	¥ 3		¥(0)	¥(0)	
INR Selling WON	5 49		(0)	(0)	
INR	19		(0)	(0)	
			s of Yen		
At March 31, 2012	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss	
Foreign currency forward contracts:  Buying EUR  USD	¥ 39 264		¥(0) 0	¥(0) 0	
STG CNY	2 167		(O) (O)	(O) (O)	
Selling EUR Non deliverable forward:	99		(1)	(1)	
Buying WON Selling WON	¥ 4 40		¥(0) (0)	¥(0) (0)	
	Thousands of U.S. Dollars				
At March 31, 2013	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss	
Foreign currency forward contracts:	Contract Amount	Duc after One Tear	Tan value	danii/E033	
Buying EUR USD STG CNY Selling EUR USD CNY	\$ 351 2,319 21 1,925 680 489 265		\$ (0) 0 (0) (0) 21 0	\$ (0) 0 (0) (0) 21 0	
Non deliverable forward: Buying WON	\$ 31		\$ (0)	\$ (0)	
INR Selling WON	53 521		(0) 10	(0) 10	
INR	202		(0)	(0)	
Derivative Transactions to Which Hedge Accounting is Applied		Million	s of Yen		
At March 31, 2013	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value	
Foreign currency forward contracts:					
Buying USD	Payables	¥59		¥(0)	
	Millions of Yen				
At March 31, 2012	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value	
Foreign currency forward contracts:					
Buying USD EUR	Payables Payables	¥116 9		¥(0) (0)	
·	. 2,2.2100		f U.S. Dollars	(0)	
At March 31, 2013	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value	
Foreign currency forward contracts:			_ ac area. One real	. a value	
Buying USD	Payables	\$627		\$(0)	

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

## 17 COMPREHENSIVE INCOME

The components of other comprehensive income for the years ended March 31, 2013 and 2012, were as follows;

	Millio	Millions of Yen		
	2013	2012	2013	
Foreign currency translation adjustments:				
Adjustments arising during the year	¥1,376	¥(279)	\$14,638	
Total	¥1,376	¥(279)	\$14,638	

## 18 NET INCOME PER SHARE

A reconciliation of the differences between basic and diluted net income per share ("EPS") for the years ended March 31, 2013 and 2012, is as follows:

	Millions of Yen	Thousands of Shares	Yen	U.S. Dollars
For the year ended March 31, 2013:	Net Income	Weighted Average Shares	EPS	3
Basic EPS				
Net income available to common shareholders	¥1,462	113,037	¥12.94	\$0.13
Diluted EPS				
Net income for computation	¥1,462	113,523	¥12.89	\$0.13
For the year ended March 31, 2012:				
Basic EPS				
Net income available to common shareholders	¥1,023	112,915	¥ 9.06	

## 19 SUBSEQUENT EVENT

Appropriations of Retained Earnings

The following appropriation of retained earnings at March 31, 2013, was approved at the Company's shareholders' meeting held on June 21, 2013:

	Millions of Yen	Thousands of U.S. Dollars
Year-end cash dividends, ¥1.10 (\$0.01) per share	¥124	\$1,319

### 20 SEGMENT INFORMATION

Under ASBJ Statement No. 17 "Accounting Standard for Segment Information Disclosures" and ASBJ Guidance No. 20 "Guidance on Accounting Standard for Segment Information Disclosures," 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. Therefore, the Group's

reportable segments consist of the Genetic engineering research, Gene medicine and AgriBio segments.

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

The segment of Gene medicine consists of the businesses of medical devices, gene therapy related products and service business.

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

### (2) Methods of Measurement for the Amounts of Sales, Profit (Loss), Assets, Liabilities 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."

### (3) Information about Sales, Profit (Loss), Assets, Liabilities and Other Items

		Millions of Yen						
		2013						
	Genetic engineering research	Gene medicine	AgriBio	Total	Reconciliations	Consolidated		
Sales:								
Sales to external customers	¥16,997	¥ 1,240	¥2,326	¥20,564		¥20,564		
Intersegment sales or transfers			0	0	¥ (0)			
Total	16,997	1,240	2,327	20,565	(0)	20,564		
Segment profit (loss)	4,831	(1,112)	(304)	3,414	(1,722)	1,691		
Segment assets	21,797	2,299	4,424	28,521	18,127	46,649		
Other:								
Depreciation	576	185	274	1,036	68	1,104		
Amortization of goodwill	119			119		119		
Increase in property, plant								
and equipment and intangible assets	690	88	263	1,043	1,354	2,397		

Millions of Yen 2012 Genetic engineering research Gene medicine AgriBio Total Reconciliations Consolidated Sales: ¥16,300 ¥ 842 ¥2,435 ¥19,578 ¥19,578 Sales to external customers (1)Intersegment sales or transfers 1 16,300 842 2,436 19,579 19,578 Total (1) Segment profit (loss) 4,447 (1,186)(253)3,007 (1,459)1,547 Segment assets 19,901 2,010 4,751 26,663 17,369 44,032 Other: Depreciation 548 153 301 1,003 74 1,077 Amortization of goodwill 124 124 124 Increase in property, plant

260

906

19

926

72

574

	Thousands of U.S. Dollars							
		2013						
	Genetic engineering research	Gene medicine	AgriBio	Total	Reconciliations	Consolidated		
Sales:								
Sales to external customers	\$180,819	\$ 13,191	\$24,744	\$218,765		\$218,765		
Intersegment sales or transfers			0	0	\$ (0)			
Total	180,819	13,191	24,755	218,776	(0)	218,765		
Segment profit (loss)	51,393	(11,829)	(3,234)	36,319	(18,319)	17,989		
Segment assets	231,882	24,457	47,063	303,414	192,840	496,265		
Other:								
Depreciation	6,127	1,968	2,914	11,021	723	11,744		
Amortization of goodwill	1,265			1,265		1,265		
Increase in property, plant								
and equipment and intangible assets	7,340	936	2,797	11,095	14,404	25,500		

Note: 1. Reconciliations of segment profit include unallocated operating expenses of ¥1,722 million (\$18,319 thousand) and ¥1,459 million for the years ended March 31, 2013 and 2012, respectively, consisting principally of fundamental research and development expenses and administrative expenses incurred by the administrative and accounting departments of the Company.

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

and equipment and intangible assets

	Millions of Yen				Thousands of U.S. Dollars			
	2013							
	Genetic engineering				Genetic engineering			
	research	Gene medicine	AgriBio	Total	research	Gene medicine	AgriBio	Total
Sales to external customers	¥16,997	¥1,240	¥2,326	¥20,564	\$180,819	\$13,191	\$24,744	\$218,765

## (5) Information about geographical areas is as follows

## (a) Sales

			Millions of Yen			
			2013			
Japan	U.S.A.	China	Asia (except for China)	Europe	Other	Total
¥12,515	¥2,915	¥2,823	¥933	¥1,225	¥150	¥20,564
			Thousands of U.S. Dollars			
			2013			
Japan	U.S.A.	China	Asia (except for China)	Europe	Other	Total
\$133,138	\$31,010	\$30,031	\$9,925	\$13,031	\$1,595	\$218,765

## (b) Property, plant and equipment

		Millio	ons of Yen		
		2	2013		
Japan	U.S.A.	China	Asia (except for China)	Europe	Total
¥9,542	¥228	¥2,223	¥194	¥7	¥12,196
		Thousands	of U.S. Dollars		
		2	2013		
Japan	U.S.A.	China	Asia (except for China)	Europe	Total
101,510	\$2,425	\$23,648	\$2,063	\$74	\$129,744

## (6) Information about amortization of goodwill and goodwill at March 31, 2013 is as follows

	Millions of Yen  2013					
	Genetic engineering research	Gene medicine	AgriBio	Total	Reconciliations	Consolidated
Amortization of goodwill	¥ 119			¥ 11	9	¥ 119
Goodwill at March 31, 2013	1,331			1,33	1	1,331
			Thousands of	U.S. Dollars		
	<del></del>		20	13		
	Genetic engineering research	Gene medicine	AgriBio	Total	Reconciliations	Consolidated
Amortization of goodwill	\$ 1,265			\$ 1,26	5	\$ 1,265
Goodwill at March 31, 2013	14,159			14,15	9	14,159

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 subsidiaries as of March 31, 2013, 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 misstatements, 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 subsidiaries as of March 31, 2013, 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. Such U.S. dollar amounts are presented solely for the convenience of readers outside Japan.

June 7, 2013

(June 21, 2013 as to Note 19)

Dolnitte Jouche Johnatsu LLC

## INVESTOR INFORMATION

(As of March 31, 2013)

### **Corporate Data**

Trade Name Takara Bio Inc. ¥9,233 million

**Head Office** Seta 3-4-1, Otsu, Shiga 520-2193, Japan

Telephone: +81-77-543-7212

**Established** 

April 1, 2002

**Issued Capital** 

Number of Employees of Takara Bio Group

1,164

URL

www.takara-bio.com

### **Main Offices**

Headquarters and Research Laboratory

Seta 3-4-1, Otsu, Shiga 520-2193, Japan

**Kusatsu Office** 

Noji-Higashi 7-2-62, Kusatsu, Shiga 525-0058, Japan

**Dragon Genomics Center** 

Sakura-cho 7870-15, Yokkaichi, Mie 512-1211, Japan

### Eastern Japan Sales

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

### **Kusu Factory**

Minamigomizuka 1350-2, Kusu-cho, Yokkaichi, Mie 510-0104, 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, production and sale of research reagents
Takara Korea Biomedical Inc.	Seoul, Korea	W3,860 million	Sale of research reagents and scientific instruments
Takara Bio USA Holdings Inc.	Mountain View, U.S.A.	US\$70,857 thousand	Subsidiary management
Clontech Laboratories, Inc.	Mountain View, U.S.A.	US\$83 thousand	Development and sale of research reagents
Takara Bio Europe S.A.S.	Saint-Germain-en-Laye, France	EUR600 thousand	Sale of research reagents
DSS Takara Bio India Pvt. Ltd.	New Delhi, India	RP45 million	Production and sale of research reagents
Takara Biomedical Technology (Beijing) Co., Ltd.	Beijing, People's Republic of China	¥1,030 million	Sale of research reagents, cell culture media and gas-permeable bags
Mizuho Nourin 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, J	apan ¥3 million	Production and sale of Ashitaba and other agricultural products
KINOKO CENTER KIN INC.	Okinawa, Japan	¥5 million	Production and sale of mushrooms

### Investor Information (As of March 31, 2013)

Common Stock					
Authorized Shares	400,000,000 shares				
Issued and Outstanding	113,575,600 shares				
Number of Shareholders	30,204				
Major Shareholder	Takara Holdings Inc. (70.44% equity owned)				
Stock Listing	Tokyo Stock Exchange Mothers (securities code number: 4974)				
Fiscal year	From April 1 to Ma	rch 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 w	rill be posted			
	in advance if neces	sary			
Share Unit Number	100 shares				
Transfer Agent and Registrar	Mizuho Trust & Banking Co., Ltd.				
	Yaesu 1-2-1, Chuo	-ku, Tokyo, Japan			
Transfer Agent Office	Mizuho Trust & Bar Stock Agency Tran	ıking Co., Ltd., Osaka Branch, sfer Department,			
	Sonezaki 2-11-16,	Kita-ku, Osaka, Japan			

### Inquiries to Transfer Agent and Registrar

(If investor does not hold an account at a securities company) Mizuho Trust & Banking Co., Ltd., Stock Agency Transfer Department,

Izumi 2-8-4, Suginami-ku, Tokyo 168-8507, Japan, Telephone: 0120-288-324 (toll free, within Japan only) (If investor holds an account at a securities company)

The securities company with which the investor conducts transactions

### STOCK PRICE RANGE

(Yen) 15,000 1,500 1,000 10,000 5,000 0 0 10/4 11/4 12/4 13/3 Stock price of Takara Bio (left scale) Nikkei Average (right scale)

Note: Indicated prices are retroactively adjusted for a 400-for-one stock split, taking April 1, 2011 as the effective date.

## TAKARA BIO INC.

Seta 3-4-1, Otsu, Shiga 520-2193, Japan Telephone: +81-77-543-7212 www.takara-bio.com

Inquiries

Takara Bio Inc., Corporate Communications

Telephone +81-77-543-7212 E-mail bio-ir@takara-bio.co.jp

