



2017 FUJIREBIO INC. ENVIRONMENTAL REPORT

Fujirebio Group Contributes to Global Healthcare.

Since the company's formation, under its management philosophy of contribution to global healthcare, Fujirebio Inc. has supplied innovative products, technologies and information mainly in the area of clinical diagnostics, thus aiming at the realization of being a global life science company with higher corporate values.

Hospitals and medical care facilities worldwide are actively engaged in developing therapeutic drugs to overcome various intractable diseases and at the same time, are still longing for development of clinical diagnostics* and test equipment for early detection and clinical diagnostics of diseases.

Our key products, which include clinical diagnostic reagents related to AIDS, cancer, hepatitis, influenza and other diseases, are utilized at clinical sites domestically and abroad. In addition, our Lumipulse Series, which incorporates clinical diagnostic reagents and testing instruments, has garnered high ratings as a comprehensive testing system both in and outside of Japan.

Fujirebio Inc. will continue its contribution to worldwide healthcare through the creation of new values with full awareness and responsibility for human life and health.

*Clinical diagnostics: Clinical diagnostics are testing reagents that are not used directly for the human body but are intended for use in the diagnosis of disease, including determination or detection of substances or biological activities using blood, urine, or other substances taken from the human body as a specimen.

Corporate profile (as of March 31, 2017)

Company name	: Fujirebio Inc.
Inception	: July 11, 2005 (corporate split)
Head office	: Shinjuku Mitsui Building, 2-1-1 Nishishinjuku, Shinjuku-ku, Tokyo 163-0410 TEL: +81-3-6279-0800 FAX: +81-3-6279-0854
Representative	: President & CEO, Yoshihiro Ashihara
Business activities	: Manufacturing, sale and import/ export of clinical diagnostic reagents and assay instruments.
Paid-in capital	: ¥4,252,902,860
Plants and offices	: Shinagawa Office, Hachioji Facility, Hachioji Plant No.2, Hachioji Plant No.3, Sagami-hara Plant, Obihiro Facility, Ube Plant, Distribution Center, Kuki Distribution Center, Tokyo Branch (in the Shinagawa Office), Capital Region Branch, Kanagawa Branch, Hokkaido Branch, Tohoku Branch, North-kanto Branch, Chubu Branch, Osaka Branch, Chushikoku Branch, Kyushu Branch
Number of employees	: 512 (at Fujirebio as an affiliate of Fujirebio Holdings, Inc. (FRHD), as of Mar. 2017)

*Please see p.13 for more information regarding Fujirebio Holdings, Inc.

Origin of corporate name

The "rebio" in our corporate name consists of "re" from the word revival and "bio," meaning life. The name is intended to symbolize the wish for restoration of life, which has been our dream and goal since the company's inception.



iQ200SPRINT/iChemVELOCITY



LUMIPULSE® L2400



LUMIPULSE® G1200



LUMIPULSE® reagents



ESPLINE® Influenza diagnostics



LUMIPULSE® G600 II



Environmental Policy

1. Creation of Environmentally-Friendly Products

In an effort to respect the environment in all stages of activity (from product design to disposal), we endeavor to manufacture products that are environmentally friendly.

2. Prevention and Abatement of Pollution

We actively confront the issues of pollution prevention and abatement by implementing thorough safety measures in the management of chemical and microbiological substances.

3. Energy Saving, Resource Conservation and Recycling

All of our divisions are committed to waste through the promotion of energy saving, resource conservation and recycling.

4. Regulation Compliance

We fully observe and comply with all environmental protection laws, regulations, ordinances and agreements at the national, regional and local levels.

5. Review and advancement of Environmental Management System (EMS)

We periodically review environmental objectives and set goals to ensure the continuous advancement of EMS.

6. Specifications of Organization and Authority

Our written outline of specifications for organization and authority concerning the EMS constitutes the core around which all members of company base their actions. We expect our partners to support the terms of this policy.

Editorial policy

This report has been issued with the aim to make easily understood the environmental activities we have been conducting in order to further enhance our credibility to both internal and external stakeholders.

We have endeavored to create this 13th report in a manner which helps to give a holistic view of our ongoing environmental protection activities for our employees, people in the community, and our shareholders, in line with the editorial policy from previous issues.

The wave of globalism has had a marked effect on our company with the total number of employees working at an overseas group company of Fujirebio Holdings now exceeding 40%.

Although we introduced a report on environmental activities at our overseas group companies in the TOPICS section of our last report, a major theme in the future will be an effort to share (globalize) the environmental activities of all group companies—both domestic and abroad—as much as possible while also respecting the unique characteristics of each region.

Havoc and devastation from abnormal weather, which is said to be caused by global warming, is increasing globally each year.

The demand for industry to be environmentally conscious grows increasingly, and we are committed to expanding our voice and activities in facing the situation, no matter how large or small the effort. Our entire group is committed to making further improvements to reduce environmental impact.

In preparing the 2017 Environmental Report, emphasis was placed on the following two points:

1. Coverage

We referred to the Environmental Reporting Guidelines by the Ministry of the Environment in order to aim for systematic information disclosure in drafting our report.

2. An easy-to-understand arrangement

We paid attention to the construction of chapters, sections and layout, and also gave consideration to visual presentation by use of illustrations and photos.

*The Fujirebio Environmental Report is issued as a yearly report which is also made available on our website in Japanese and English versions.

Contents

Corporate profile	1
Environmental Policy	2
Editorial policy/About the Fujirebio 2017	
Environmental Report	2
Message from the President	3

Environmental Discussion

Reviewing environmental impacts directly related to operations	4
Supply Chain (Scope 3)	4

Relation between Our Business and the Environment

Fujirebio's business activities and their impact on the environment	5
---	---

Environmental Efforts

Environmental management activities	6
Environmental objectives and results for FY2016/Objectives for FY2017	7
Regulatory Initiatives	8
Nonrenewable Resource Initiatives	8-9

Reducing Our Environmental Impact

Forest conservation activities	10
Introducing external activities	10

Environmental Initiatives

Eco-Driving activities	10
------------------------------	----

Initiatives Aimed at Building a Recycling-oriented Society

.....	11
-------	----

Community Activities

.....	11
-------	----

Building a Relationship with the Community

.....	11
-------	----

Acquisition of ISO 14001:2015 Certification

.....	12
-------	----

Environmental Activities within Our CSR Activities Framework

.....	12
-------	----

Environmental Activities of Overseas Subsidiaries

.....	13
-------	----

Message from the Environmental Manager

.....	14
-------	----

About the Fujirebio 2017 Environmental Report

- Coverage: All business offices of Fujirebio Inc.
- Please note: This environmental report was primarily written based on the 2016 report, including data categories. However, it also includes new topics and articles required to complete the 2017 report.

Fujirebio continues to integrate environmental considerations and social responsibilities into all of its sustainable business activities as the driving force behind the Fujirebio Group



A handwritten signature in black ink, appearing to read 'Ashihara Yoshihiro'.

Yoshihiro Ashihara

President & CEO

Global warming, which has led a number of issues including energy resource depletion and climate change, has grown into an urgent issue that must be dealt with on a global scale in this century. Proactive measures to protect the environment, beginning with the conservation of resources and energy, are now expected of companies as their corporate social responsibility.

As a global life science company, Fujirebio aspires to contribute to society based on our management philosophy that affirms that, “Contributing to Global Healthcare through the Creation of New Values with Respect for Human Life and Commitment to People’s Health.” As part of our environmental statement aimed toward the realization of our philosophy, we have established the intent to make all possible efforts to protect the environment, and are committed to maintaining good relations with local communities. Since acquiring ISO 14001 certification in 2001, we have continued to proactively engage in activities that reduce burdens imposed on the environment. With regard to reducing energy use, waste, and CO₂ emissions - which one could argue sits at the very foundation of this - we have set 5-year medium-term targets as well as annual targets, and our continued efforts have paid off with increasingly successful results.

As a company involved in the manufacture and sale of medical products, we believe that providing the world with products that are safe, effective and give ample consideration to environment will result in maintaining health and curing disease across an even wider spectrum of people. At Fujirebio Group, we strive to turn the idea of earth-friendly manufacturing into reality by carefully evaluating every process in the supply chain, including every stage from product design to raw material procurement, production, and sales.

Our environmental activities run in parallel with our business activities, and play an important role in our activities that focus on finding ways to contribute to society. In our environmental management system, for the past few years each site has conducted discussions to define “environmental activities in line with business activities.” The results of these discussions are then reflected in company-wide activity targets and their specific details. In addition to our internal environmental activities, for several years now we have also been carrying out awareness campaigns aimed at external stakeholders in a move to gradually expand the scope of our environmental efforts. We fully intend to continue proactively engaging in initiatives that will serve as a driving force behind the CSR efforts of Miraca Holdings.

We intend to communicate our environmental efforts in a direct and transparent manner through this report. We anticipate your thoughts and advice which further develop our EMS and environmental activities.

Environmental Discussion

◆ Reviewing environmental impacts directly related to operations

We have continued to implement Environmental Discussion to examine environmental aspects related to our business.

We began holding the Discussion in 2013, and in 2015, its third year, we formulated action plans at the departmental level. In 2016 we expanded on and reexamined these plans based on product and service lifecycles, outsourcing, our capabilities and other aspects of our business that we brought in line with ISO 14001:2015 requirements.

Below is an overview of the actions contained in the plans.

Domestic sales	Spread awareness of testing device maintenance, provide appropriate product information, optimize distribution of pamphlets, reduce number of non-commercial samples provided, optimize frequency of staff dispatches due to customer calls, make known environmental requirements for outsourcers handling set-up of exhibition booths, reduce CO ₂ emissions incurred in shipping spare parts.
Overseas business	Reduce the number of shipments; optimize response time to customer calls; provide appropriate product information.
Production	Unify manufacturing processes; produce inserts and labels in-house; reduce excess use of samples; improve replenishment tasks; reduce the production of defective product for CL4 equipment; change gas fuel; migrate to cell culture recombination type manufacturing; improve stacking cases for delivered goods; Improve packaging line processes.
Supply chain	Replace aging facilities; Promote green purchasing; reduce phone call times; reduce idling time of deliverers; improve storage procedures in the storehouse.
Quality assurance	Encourage relevant departments to make fewer changes immediately after technology transfers, replace equipment that uses CFCs, reconsider reagent amounts used in quality testing, build document management system.
Research and development/ Marketing	Manufacture material in house; optimize cartridge reagent for body fluids labeling; reduce first proofs of revisions for label packaging; improve efficiency of evaluation-side operations; reduce the number of responses and submissions in the application process; reduce waste of expired reagent; improve Prelaunch Packet content, translation improvement.
General Affairs/HR/Corporate planning	Improve vehicle management, switch power supplier; improve man-hours; improve SAP work, improve the decision request process; improve the use of file server folders.

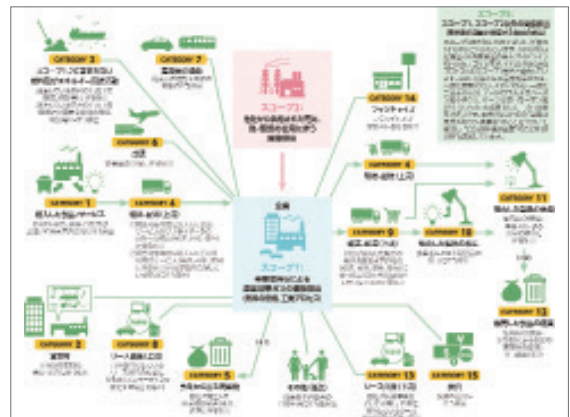
In 2017 we aim to implement activities that will further reduce our environmental impact.

Supply Chain (Scope 3)

In order to assess the environmental impact of providing a product or service, or 'life cycle assessment', we have begun monitoring direct greenhouse gas emissions from the company (Scope 1 emissions), indirect greenhouse gas emissions from the generation of purchased energy (Scope 2 emissions), and greenhouse gas emissions from the activities of other companies (Scope 3 emissions) in accordance with the guidelines established for each emission category while bearing in the value chain in mind.

	Scope 1	Scope 2	Scope 3
FY2014	3,413	6,573	74,763
FY2015	2,732	6,776	76,461
FY2016	2,409	6,166	64,172

Unit: t-CO₂



(Source: "Approaches to Calculating Supply Chain Emissions")

SCOPE 3 Emissions category			Calculated items	Plan target	Unit	Calculation data	FY2014	FY2015	FY2016
Upstream	1	Purchased goods and services	Emissions associated with activities until a raw material, part, finished product, material relating to purchase, etc. is produced.	●	Amount per unit	Purchase price	5,948	6,847.4	4,945.6
				●	Amount per unit	Purchase price	6,382	6,270.3	3,548.3
	4	Upstream transportation and distribution	Emissions associated with transport of a raw material, part, finished product, material relating to purchase, etc. until it arrives at the company	●	Amount per unit	Purchase price	12,330.0	13,117.7	8,493.9
	5	Waste generated in operations	Emissions associated with transport and disposal of waste product generated at our company	●	Unit of weight	Manifest and others	799.2	794.6	563.1
	6	Business travel	Employee domestic and overseas business travel	●	Amount per person	Number of employees	95.5	94.6	87.9
	7	Employee commuting (including with own car)	Emissions associated with employees commuting to the workplace	●	Transportation allowance	Amount of payment	86.3	97.2	106.4
				●			30.0	35.3	4.5
				●			17.2	16.1	18.1
Downstream	9	Downstream transportation and distribution	Emissions associated with transportation of products, storage, handling of retail products	●	Truck transport emissions	Packing weight-travel distance	45,368	45,368	42,755
	11	Use of sold products	Emissions associated with the use of products by users (consumers/businesses)	●	Rated power operation time	Number of units	2,803.29	2,928.8	2,809.7
	13	Downstream leased assets	Emissions associated with operating leased assets	●	Rated power operation time	Number of units	904.05	891.1	839.7
Total							74,763.6	76,461.1	64,172.1

*Reference: Basic Guidelines on Calculating Greenhouse Gas Emissions Through the Supply Chain (published by MOE/METI) Unit: CO₂-t

Relation between Our Business and the Environment

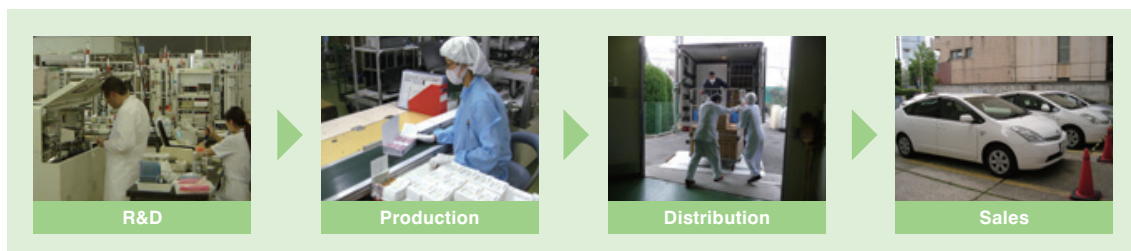
❖ Fujirebio's business activities and their impact on the environment

Fujirebio pursues the creation of a recycling-oriented society by grasping an accurate understanding of environmental impacts caused by our business activities.

By reducing the use of raw materials, improving productivity, and implementing energy-saving activities, we conduct our business in a manner that reduces emissions that harm our environment. Also, by taking environmental impact into consideration in every stage from manufacturing to services, and by managing environmental impact with targets for inputs and outputs, we have achieved year by year improvements.

Energy		Water		Containers and packaging	
Electric:	11,999.0 thousand kWh	Surface water:	45.4 thousand m ³	Glass containers:	29.0t
City Gas:	747.8 thousand m ³	Groundwater:	2.2 thousand m ³	Plastic containers:	165.1t
LPG: (liquid petroleum gas)	75.6 thousand m ³			Rubber:	5.7t
Light diesel oil:	7.1KL			Metal:	4.2t
Gasoline:	178.3KL			Packaging materials (paper):	189.5t
Kerosene:	120.4KL				
		Chemical		Paper	
		PRTR substances:	3.7t	Copy paper:	11.0t
		Raw materials and other:	24.3t		

INPUT



OUTPUT

Waste		Air		Containers and packaging (plant waste)	
Total output:	203.4t	CO ₂ :	8,575.0t	Glass containers:	0.0t
Recycled amount:	184.5t	PRTR substances:	0.1t	Plastic containers:	0.0t
PRTR substances:	3.2t			Rubber:	0.0t
				Metal:	0.0t
				Paper:	0.0t
		Water category			
		Total wastewater:	41.8 thousand m ³		
		Drainage to public water areas:	7.9 thousand m ³		
		Drainage to sewage system:	34.0 thousand m ³		
		BOD:	0.4t		
		COD:	0.3t		
		SS:	0.2t		
		PRTR substances:	0.9t		

Environmental management activities

All of our sites including our group companies have obtained ISO 14001 Certification.



Policy and outline of EMS

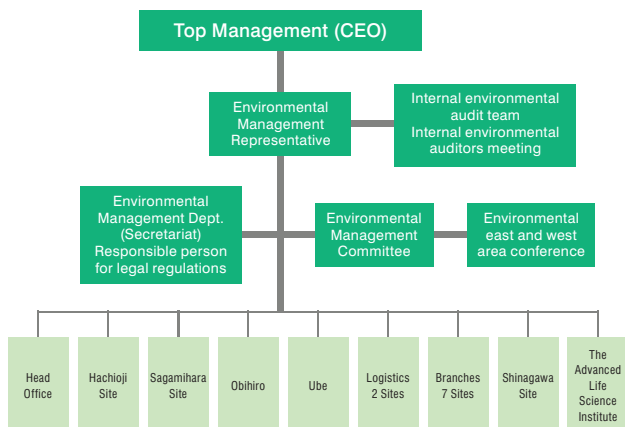
Every year management puts out a "Policy and Outline of the EMS," which fleshes out the environmental activity items from the "Environmental Policy" that should be focused on in the fiscal year. EMS policy and the matters to be performed for achieving the policy are presented for fiscal 2016. Its contents are incorporated in the "company-wide EMS" including the group companies. EMS will be further developed according to the progress management of policy implementation during period and the output from top management in the quarterly "Environmental Management Review."

Environmental management promotion organization

This organization includes the CEO, Environmental Management Representative, Environmental Management Committee, Environmental East and West Area Conference (broadcasted to all sales branches through a TV conference), and environmental meetings held under each site manager as lower organizations, thereby promoting the infiltration and continuous improvement of EMS. Representatives from group companies also participate in the Environmental Management Committee and have established close communication with each other.

While EMS is applied through corporate-wide environmental documents and site procedures, a feature of our environmental management system is that we pursue originality appropriate for the environmental impact of each site with the site system introduced.

Environmental Activities Promotional Structure (EMS Organizational Chart)



Compliance with legal regulations

The responsible person for environmental legal regulations sends legal amendment information to all the sites as "environmental regulations news" through the network using the legal regulating management tools every month. Each site checks and updates the registered latest legal regulating information bimonthly and evaluates the lawabiding regulation at least twice a year. Evaluation of legal compliance to laws and regulations, including all items of district ordinances, were verified in the review for fiscal 2016. Laws and regulations that were newly revised and enacted are included in these, thus we will further enhance the law-abiding system by implementing even closer communication between sites.

Internal audit

We have established an Internal Audit Office to ensure in impartiality in internal environmental audits.

In addition to reporting the results of audits to the president every month, internal environmental auditors hold a teleconference meeting each quarter where they review internal audits, present and discuss items identified by auditors, and work towards standardizing the evaluation standards. This provides a valuable opportunity for internal environmental auditors to continue their training.



Internal environmental auditors also participate in fullday auditor training sessions, held once a year, to brush up on their auditing skills.

Environmental discussion

The Environmental Discussion that we hold annually company-wide is an important of our EMS. During these, all employees engage in department-by-department comprehensive discussions based on the theme set by the administrative office. The outcome of this is summarized by group to include a 'Department', 'Site Environmental Objective', and 'Action'. Next, these are made into a theme for the "Next Fiscal Year's EMS Policy and Outline" to serve as a company-wide goal. A report on each site is presented in the Environmental Discussion special feature of this issue.

Environmental Efforts

Environmental objectives and results for FY 2016/Objectives for FY 2017

We will set specific targets wherever possible and develop earth-conscious business activities

FY 2016 was the third year to implement activities in our three-year medium-term goal (2016 to 2018), which was formulated using FY 2009 as a reference year. We were able to achieve our targets by changing our energy saving and global warming prevention goals to conform to those in the written report on the Energy Conservation Act and by carrying out energy conservation measures. We were also able to achieve significant reductions in non-recyclable waste emissions by reevaluating our measures for dealing with waste in general using FY 2012 as a reference year. Renewal of our ISO 14001 certification was approved after undergoing an audit (valid from December 2016 to December 2019), and we were able to switch our certification to the revised 2015 version after the preparations we made during FY 2016. We also complied with leakage calculations as mandated in the Freon Control Act. For our activities in 2017 we chose to continue (1) initiatives associated with environmental aspects related to business and (2) energy-saving measures for reducing our energy consumption.

Item	Environmental objective	Environmental targets for FY 2016	Assessment	Specific measures for FY 2016	Environmental targets for FY 2017
Energy saving/ Prevention of global warming	Reduction of energy consumption	Reduction per basic unit compared with FY 2015	◎	94.1%	Reduction over the previous year
	Reduction of CO ₂ emission	Reduction per basic unit compared with FY2015	◎	79.5%	Reduction over the previous year
	Reduction of gasoline consumption	Further improvement of gas mileage	○	Eco activities and education record storage & management	Further improvement of gas mileage
Resource conservation/ Waste minimization	Reduction of office paper purchases	Remove from company-wide target and set as goal for only certain worksites	△	Managed by worksite	Remove from company-wide target and set as goal for only certain worksites
	Reduction of waste (general waste)	Reduction of 4% per basic unit compared with FY 2012	◎	130.6%	Reduction of 5% compared with FY 2012
	Reduction of waste (industrial waste)	Reduction of 4% per basic unit compared with FY 2012	◎	144.8%	Reduction of 5% compared with FY 2012
Legal regulations	Strict control for compliance with regulations under environmental legislation	Compliance with amended Energy Conservation & Global Warming Acts (Prepared report of results for FY 2015 and complied with the mandatory reduction of energy amounts used)	◎	175 laws and regulations compliance evaluation (including ordinances) at [entire sites] all sites	Compliance with the amended Energy Saving Act and the amended Global Warming Solutions Act (Organized its administrative bodies and prepared a report and a plan for FY 2016.)
		Compliance with amended Tokyo Metropolitan ordinances (Prepared a report for FY 2015 and complied with the mandatory reduction of total volume.)	◎	Preparing data on volume of energy used and CO ₂ Emissions A report on implementation and a plan submitted before the deadline	Compliance with amended Tokyo Metropolitan ordinances (Prepared a report for FY 2016 and complied with the mandatory reduction of total volume.)
Environmental care in products	Coping with environmental aspects of the business	Environmental aspect assessment and plan formulation	○	Formulation of FY 2016 implementation plan based on company-wide Environmental Discussion	Formulation of FY 2017 implementation plan based on company-wide Environmental Discussion
Environmental documentation	Understanding of the environmental documentation management system	Continuation of periodic revision of all environmental documents for single year	◎	Level 1,2 documents have been revised and registered Level 3 documents have been revised and registered	Continuation of periodic revision of all environmental documents for single year, and revision of documents to comply with revised ISO standards
Operation control	Management of industrial waste disposal companies	Continuing implementation of reliability assessment	◎	Storing and managing agreements on observation of laws among 37 contracting companies	Continuing implementation of reliability assessment
	Promotion of eco-officing	Stricter control of eco-officing	◎	Achieving company-wide energy saving target planning	Stricter control of eco-officing
Environmental education	Implementation of the annual environmental education policy and outline	Implementation of FY 2016 environmental education policy and outline	○	Execution of FY 2016 plan by site and department (each site, department educational records, progress table management)	Implementation of FY 2017 environmental education policy and outline
Environmental communication	External communication with industrial waste disposal contractors	Continuation of commitment of compliance with laws to consignees	◎	Reception of responses from 37 industrial waste disposal contractors (Completion of record and registration at every site)	Continuation of commitment of compliance with laws to consignees
	Issuing of the environmental report	Issuance of Environment Report for FY 2016	○	Continually issuing	Issuance of Environment Report for FY 2017
	Improvement of internal communication	Implementation of company-wide environmental discussion and correction in FY 2016	◎	Discuss emergency responses and aspects that could affect the environment. Use this outcome to develop worksite activities	Implementation of company-wide environmental discussion and correction in FY 2017
ISO environmental management	Responding to ISO 14001 external auditing	Respond to ISO14001:2004 audit (including our group company, ALSI)	◎	Passing ISO 14001 audit to retain certification (including related company - Advanced Life Sciences Institute)	Respond to ISO14001:2015 audit (including our group company, ALSI)
Internal environmental audit	Reinforcement of internal audit	Implementation of internal audit policy for FY 2016	◎	Completion of audit planning, implementation and review in FY 2016 (ensuring independence by establishing an internal audit office)	Implementation of internal audit policy for FY 2016 (compliance with revised ISO standards)
Social contribution	Continued issuance of medical science journals	Issuance of the academic journal Medicopia 2016	◎	Issuance of the 57th academic journal Medicopia 2016	Issuance of the academic journal Medicopia 2017
	Holding of educational lecture meetings and symposiums	Successive holding of seminars for FY 2016	◎	Holding of the 37th Medicopia symposium in FY2016	Successive holding of seminars for FY 2017
	Contribution to the blood collection businesses extensively	Continuation of contribution for FY 2016	○	Implementation of contribution items	Continuation of contribution for FY 2017
	Contributing to healthcare in the world	Continuation of cooperation with contribution for FY 2016	○	Development of markets in developing countries (establish Indian corporation)	Continuation of cooperation with contribution for FY 2017
	Contribution to the community	Continuation of holding and contribution for FY 2016	◎	Holding of the FY 2016 Summer Festival, cleanup activities, and plan execution at each site	Continuation of holding and contribution for FY 2017

Evaluation criteria: ◎Target achieved ○Target achieved with some improvement required △Efforts have been made but the performance evaluation is poor ×Target not achieved

Regulatory Initiatives

(I) Amended Energy Conservation Act: Report on energy use per basic unit

Fiscal year	2011	2012	2013	2014	2015	2016
Energy use per basic	0.0814	0.0802	0.0803	0.0851	0.0889	0.08517
Versus previous year		98.5%	100.1%	106.0%	104.5%	95.80%
Evaluation†		Achieved	Not achieved	Not achieved	Not achieved	Achieved

*Basic unit = energy use (crude oil equivalent in kL) ÷ total floor area of all workplaces

†: Annual average 1% reduction obligation

Specified business operator (total of all workplaces) CO₂ emissions by year

Electric, gas, kerosene	2011	2012	2013	2014	2015	2016	Versus
Total CO ₂ (t) emissions	6,831	7,398	8,249	9,471	8,987	8,161	-9.2%

<CO₂ Emission Coefficient by Power Company>

	Hokkaido Electric Power Co.	Tohoku Electric Power Company Co.	Tokyo Electric Power Co.	Chubu Electric Power Co.	Kansai Electric Power Co.	Chugoku Electric Power Co.	Kyushu Electric Power Co.	Ennet Corp.*1
FY 2015	0.000683	0.000571	0.000505	0.000497	0.000531	0.000706	0.000584	
FY 2016	0.000669	0.000556	0.000500	0.000486	0.000509	0.000697	0.000509	0.000418
Versus previous year	98%	97%	99%	98%	96%	99%	87%	

FY 2016: from Emission Coefficient by Electricity Providers, Published 12/27/2016, Partial Additions & Amendments 7/14/2017

*1: From 2016 Ennet Corp. provided electricity to some of our workplaces.

(II) Tokyo global warming countermeasures compulsory reductions and emissions trading scheme (2-term/5-year): Hachioji facility performance

Item	Baseline emissions	2015	2016	2017	2018	2019
CO ₂ emissions (t)	4,062	3,041	2,886			
Versus baseline emission amount		25.1%	29.0%			

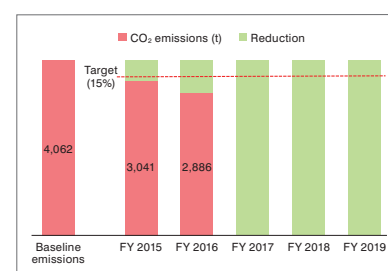
Target Facility: Hachioji facility

Baseline emissions: Average emissions from FY 2002 to FY 2004 (using coefficients set in the 2nd planning period)

Compulsory reductions: Reduction of 15% or more versus CO₂ baseline emissions

(5-yr period from 2015 to 2019 average reduction of at least 15%)

Emissions trading scheme: Excess reduction of 2,940 t of CO₂ in 1st planning period.



Nonrenewable Resource Initiatives

Expanding low-carbon-producing business activities to eliminate waste of energy and resources.

Efforts to reduce amounts of energy used

In 2010, when the Energy Conservation Act was amended, Fujirebio set numerical targets and began implementing activities to reduce energy use. Of particular note, our Hachioji site, responsible for key production, was classified as a "Type-2 designated energy management factory" under the Amended Energy Conservation Act and a "large scale establishment" under the Tokyo Metropolitan Ordinance on Environmental Preservation. Accordingly, we strictly manage the operation of its manufacturing facilities and are encouraged to systematically install energy-saving equipment.

As a result of company-wide efforts, we have been able to reduce energy usage despite the relocation and increase in floor area of the Obihiro office in FY 2011, as well as business expansion (e.g. increase in offices) when we relocated our head office in FY 2012. However, our per basic unit consumption equivalent in the written report on the Energy Conservation Act increased during FY 2013-2015 over previous years due to the impact of such factors as the integration of subsidiaries' facilities, elimination of the Hamacho office building, and aging facilities. To rectify this, we established a medium-term plan for energy conservation measures, under administrative direction, that includes investment in facilities. The plan has been implemented at our main facilities (Obihiro, Hachioji, Ube, Akishima) with the result that we reduced our energy consumption (crude oil equivalent) per basic unit equivalent (total floor area) by 4.2% compared with the previous year. While energy consumption for FY 2016 also increased due to operations at our Sagami-hara Plant, we were able to absorb those increases with the reductions contributed by a reevaluation of how air conditioning was being used at our Hachioji facility and by switching to LED lighting.

While the periodic written report on the Energy Conservation Act mandates efforts be made to achieve a five-year average reduction of energy consumed of 1% or more compared with the previous period, we saw an increase of 1.5% in 2016. From FY 2017 we will implement energy conservation measures based on our medium-term plan, and work to achieve the five-year average goal.

	Floor area (m ²)	Energy consumption (kL)	Per basic unit equivalent	Year-on-year		5-year average	
				Reduction ratio (%)	Assessment	Reduction ratio (%)	Assessment
2010	41,157	3,426	0.08330				
2011	43,891	3,572	0.08140	97.7	Achieved		
2012	44,315	3,555	0.08020	98.5	Achieved		
2013	47,521	3,552	0.08030	100.1	Not achieved		
2014	47,521	4,045	0.08512	106.0	Not achieved	100.5	Not achieved
2015	45,640	4,059	0.08894	104.5	Not achieved	102.2	Not achieved
2016	47,576	4,052	0.08517	95.8	Achieved	101.5	Not achieved

Reduction of CO₂ emission

Fujirebio has been monitoring CO₂ emissions since the Kyoto Protocol*¹ went into effect in 2005. CO₂ emissions gradually decreased until 2010, but have increased dramatically since 2011. This is due to the increasing presence of thermal power generation, which burns fossil fuels and generates massive amounts of CO₂, prompted by the Great East Japan Earthquake of March 2011.

Despite this, Fujirebio has fought against increased CO₂ emissions caused by increases of thermal-generated power and business expansion. We have done this by implementing measures such as improving manufacturing efficiency through production control, improving the fuel efficiency of sales vehicles, and making steady efforts to reduce waste.

Increases after FY 2011 continued through FY 2014 but have been improving from FY 2015. Reevaluating the natural gas supplier for the Ube office enabled us to reduce CO₂ emissions (due to the resulting change to the electricity provider coefficient). In FY 2016, we significantly reduced CO₂ emissions by reducing energy consumption through the conservation measures mentioned above, as well as by reexamining electricity providers for our Hachioji and Obihiro offices. From FY 2017 we expect a further reduction in our CO₂ emissions through the implementation of energy conservation measures based on our medium-term plan.

CO ₂ emissions (t-CO ₂)						
Source	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Electricity	5,572	5,663	5,702	6,573	6,776	6,166
Natural gas, kerosene, etc.	1,259	1,735	2,547	2,898	2,211	1,995
Gasoline	635	583	535	515	503	414
Total	7,466	7,981	8,784	9,986	9,490	8,575

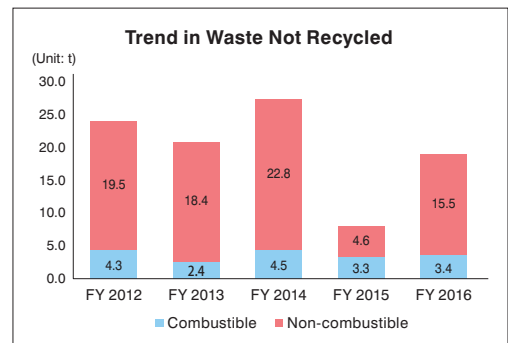
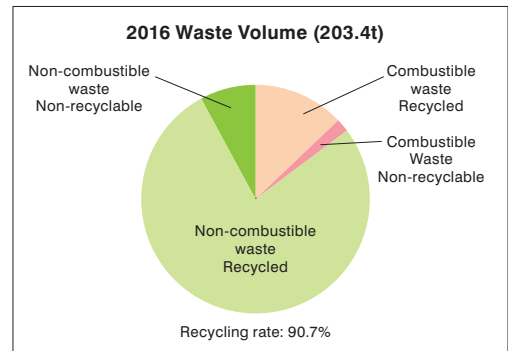
*1: Kyoto Protocol of the United Nations Framework Convention on Climate Change

Reduction of waste emissions and promoting its proper disposal

Since 2006 we have been promoting the separation and recycling of trash. By 2007, we achieved a 100% recycling rate of combustible waste at our Hachioji facility. Next in 2010, we achieved 100% recycling of non-combustible waste at our Ube Plant and Head Office (former Hamacho head office). In FY 2016, our total waste volume decreased by 80t compared with the previous year, due to the absence of any large-scale reorganization at our offices. While we continued with recycling efforts, our recycling rate remained at 90% (down 7% compared with the previous year).

From FY 2011 the amount of non-recyclable waste increased temporarily due to several factors that included sludge waste that was generated after treating laboratory animal manure in relation to the Obihiro office transfer, as well as a large quantity of trash generated due to both the relocation of the head office and the elimination of the Hamacho office. However, we were able to drastically reduce waste amounts in FY 2015 by changing our waste disposal contractor. However, non-recyclable waste amounts increased despite a significant reduction in FY 2016 of our total waste volume compared with the previous year. We intend to continue improving our recycle rate with the goal of zero emissions*² while also directing efforts towards reducing emissions company-wide.

*2: An effort to avoid disposing of any waste that cannot be recycled



Name of substances		Total handled (kg)	Release			Transfer		Consumption	Removal and disposal
			Air	Water	Land	Wastes	Sewerage		
1	Acetone	2549.3	124.0	0.0	0.0	2425.3	0.0	0.0	0.0
2	Acetonitrile	212.3	0.0	0.0	0.0	212.3	0.0	0.0	0.0
3	Ethyl acetate	203.2	0.0	0.0	0.0	203.2	0.0	0.0	0.0
4	Formaldehyde	163.8	0.0	0.0	0.0	163.8	0.0	0.0	0.0
5	Sodium azide	88.1	0.0	1.1	0.0	0.0	27.6	59.3	0.0
6	Hydrochloric acid	71.1	0.0	0.0	0.0	0.0	69.9	0.1	1.1
7	Methanol	61.4	0.0	0.0	0.0	61.4	0.0	0.0	0.0
8	Toluene	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0
9	Chloroform	44.8	0.0	0.0	0.0	44.8	0.0	0.0	0.0
10	Sodium dodecyl sulfate	35.9	0.0	0.0	0.0	28.1	7.8	0.0	0.0



Reducing Our Environmental Impact

Forest conservation activities

There is a limit to the Earth's environmental capacity and resources, and we believe it is important for all living things, including humans, to maintain a balance as they share this planet. Humans have long managed forests to prevent natural disasters, but they have also protected and cultivated them intelligently, making use of the various blessings they deliver and incorporating them into their lives. Conservation of biodiversity is but one function of forests. Yet promoting initiatives in this area of forest conservation enables companies to position them as additional measures for preventing global warming, not only in terms of preserving biodiversity, but also by combining them with reductions in the greenhouse gas emissions of their own activities.

Recognizing this, Fujirebio began interacting with Tome City's JForest Association after purchasing J-VER credits issued for forests belonging to the city, which is in Miyagi Prefecture. As a step towards the goal of building a sustainable society, we have been promoting local interaction and public awareness through Miraca backed reforestation projects since 2015. Employees and their families participate in planting Yamazakura cherry tree saplings and acorns in plantation forests where the trees will grow for the next 10 to 20 years to help create an environment where people and forests can coexist.



Learning about planting activities



Planting seedlings



Protective fence surrounding the newly-planted plantation forest

Promoting public awareness of activities

Information regarding uses for J-VER credits, environmentally-friendly products using wood from forest conservation thinnings, and related activities were presented at the Miyagi Prefecture booth at the Eco-products 2016 event hall.



Miyagi Prefecture exhibit at Eco-products 2016



Informational posters at the Miyagi Prefecture exhibit at Eco-products 2016



Miraca-Rebio Planting Commemorative Post

Environmental Initiatives

Eco-Driving activities

Since 2014, we have entered a foundation-sponsored Eco-Driving Competition in the general-vehicle category as a way to reduce environmental impact by promoting eco-driving habits with our company vehicles. To date, we have been merited repeated recognition with an Award of Excellence in 2014, Certification of Outstanding Activities in 2015, another Award of Excellence in 2016, and yet another Certification of Outstanding Activities in 2017. Improved fuel economy leads to cost control as well as safe driving, and in 2016 we saw improved fuel economy for our company fleet as a result of this. We also began installing EDRs in our vehicles to monitor their use as part of this effort.



Recognition



Foundation for promoting personal mobility and Ecological Transportation booth

	FY 2010	FY 2013	FY 2014	FY 2015	FY 2016
Gasoline usage (L)	264,971	230,264	220,519	215,348	178,335
Total avg. fuel consumption (km/L)	14.3	15.9	16.5	17.0	17.6
CO ₂ emissions (t-CO ₂)	615.2	534.6	512.0	500.0	414.0
Cedar tree (absorption number)	43,941	38,185	36,569	35,712	29,574

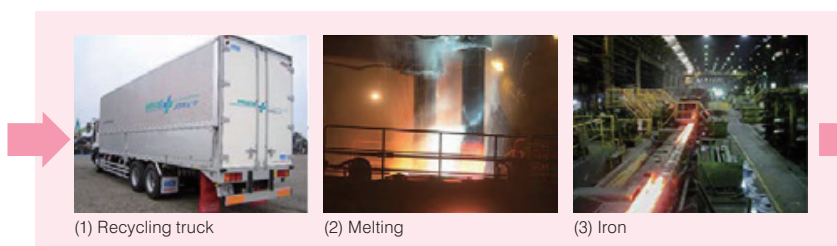


A full-grown single cedar tree is believed capable of absorbing about 14 kg of CO₂ per year.

Initiatives Aimed at Building a Recycling-oriented Society

◆ Product life cycle

As part of the product lifecycle, one of our flagship clinical testing products, Lumipulse, is striving to help build a recycling-oriented society at every stage of the process from manufacturing to use, recycling and disposal (recycling and landfill).



When Lumipulse equipment is disposed, it is melted down in electric furnace at several thousand degrees, after which it is used as a recyclable resource in iron and steel or as roadbed material.



(4) Steel



(5) Roadbed material

Community Activities

◆ Nationwide expansion of our community clean up activities

At each of our business locations nationwide we carry out clean up activities around the buildings, either together with the community or on our own.



Cleaning up around Ube Office



Cleaning up around Head Office (1)



Cleaning up around Head Office (2)



Cleaning day at the Head Office tenant bldg.



Osaka Office staff clean around the station



Sapporo Office staff clean around the station



Snow removal at Obihiro Office



Cleaning up around Obihiro Office

Building a Relationship with the Community

◆ Annual summer festival

A summer festival is held every year in August at the Hachioji facility to promote good relations and interaction with the community.

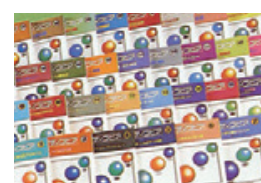


◆ Academic and cultural exchange with local communities

"Approached from the perspective that the basic function of business activities is to contribute to society," the Medicopia Educational Symposium, which has been held every January since 1981, and academic book publisher Medicopia continue to deliver this academic and cultural activity that provides people with a wide range of medical knowledge and information.



Medicopia educational symposium



Medicopia subscription-based magazine

Acquisition of ISO 14001:2015 Certification

We devoted much of our effort in 2016 into preparations for acquiring the 2015 revision of ISO 14001 certification. We worked together as one on (1) verifying, formulating, and implementing plans for environmental aspects related to operations, and carrying out, (2) internal environmental audits, (3) environmental reviews and (4) internal awareness campaigns to comply with the new requirements. As a result of this effort, we acquired certification on October 20, 2017. In its evaluation the certifying organization recognized the methods we used to carry out item (1) company-wide, which shows that we were able to effectively call attention to the results of the activities carried out at each of our business sites. These methods have been introduced to the environmental activities of affiliated companies, and we are committed to applying them to environmental activities across the Miraca Group.

However, we were also presented with a variety of challenges, including guaranteeing the capability of those in charge of operations with an environmental impact and reducing the burden the activities themselves pose. In addition to the above, in FY 2017 we will leverage our compliance with the 2015 revision to provide environmentally friendly products and services, as well as carry out initiatives that adhere to Scope 3 standards, and environmental activities (given below) that are a part of our CSR activities.



Environmental Activities within Our CSR Activities Framework

In FY 2017, the Miraca Group, which our company is a part of, set in motion a new CSR framework, reformed the areas for its CSR activities, and added the area of “a healthy and prosperous society”, symbolizing the group’s primary business, to its CSR policy. Meanwhile, the group reexamined the content of its CSR activities in each area from the perspectives of improving corporate value and the continued participation of employees in those activities. To reflect this, the area of environment was redefined with the following new wording: “each and every one of our employees contribute to a better environment as members of local communities”. The Group’s slogan for its environment activities, “provide environmentally-friendly products and services”, is Fujirebio’s own environmental policy, as well as an initiative that was established at our environmental discussion. With environmental activities a part of CSR activities, we now take into consideration our cooperative bonds with related companies and the environmental impact of our business on stakeholders. As a result, our activities go beyond being an independent undertaking by Fujirebio. We expect these activities to have synergistic effects, considering the environmental impact of the group companies’ products and services, supply chains, their relationship with their communities, and human resources development.

As global warming is a shared societal issue, companies’ environmental activities are drawing attention as a way to comply with ESGs and SDGs. As such, we plan to publicly disclose information regarding the Group’s CSR activities in a CSR report in FY 2018.

New Areas of Activity Embodying Miraca’s Unique Traits

Miraca Group will carry out such activities that help to enhance our corporate value in the following for CSR areas.

– Areas –	– Content –
A healthy and prosperous society Customers, partners, stockholders, government and local communities	Develop and distribute high quality and world-leading products and services ■ We commit ourselves to the development and distribution of high-quality, highly reliable cutting-edge clinical diagnostic products, laboratory testing and other-related services, and, as a leading Japanese brand, make those products and services available to people around the world.
Human resources Employees	Help our employees develop problem-solving and value-creating capabilities ■ For the betterment of our global society as well as Miraca group’s growth, we help our employees, as members of global society with diverse backgrounds, develop capabilities and willingness to solve problems and provide novel, value-added products and services.
Environment Government, local communities, customers, partners and stockholders	Provide environmentally-friendly products and services ■ We manufacture products, manage product life-cycles, and provide services that lead to less environmental burden, and encourage each and every one of our employees, as members of local communities, to contribute to a better environment.
Local communities Government and local communities	Live together and in harmony with local communities through charitable donations, public-interest enhancing activities and healthcare-related educational activities ■ We aim to participate in activities such as charitable donations, public-interest enhancing activities and healthcare-related educational activities for the betterment of local communities and encourage each and every one of our employees to join those activities in view of better co-habitation and harmony with local communities.

Environmental Activities of Overseas Subsidiaries

Fujirebio's aim to be a global company has led it to establish manufacturing and sales bases in the US, Asia and Europe, enabling it to provide clinical diagnostics reagents to over 100 countries around the world. As part of this effort, we established Fujirebio Holdings Inc. to primarily administer our in vitro diagnostics (IVD) business inside and outside Japan. Fujirebio Holdings includes Fujirebio Inc. (Japanese IVD business), Fujirebio Diagnostics, Inc., Fujirebio Europe NV, Fujirebio Taiwan Inc., Advanced Life Science Institute, Inc., as well as an Indian corporation established in 2016. In its environmental activities Fujirebio, together with its overseas bases, is committed to taking action to conserve the global environment. Although environmental activities have been independently developed by Fujirebio and its overseas bases, the companies promote an open exchange of information on environmental issues and certification audit compliance, and have set up a system of mutual collaboration.

Below is an introduction to some of our overseas offices.

Fujirebio Diagnostics, Inc. (FDI)

FDI, based in the US, focuses primarily on the field of malignant tumors, for which it develops and produces products, and provides raw materials. FDI has acquired and maintains ISO 14001 certification, and their business operations are developed under its environmental health and safety management system. Their primary activities are (1) compliance to legal requirements, (2) communication with stakeholders, including employees, (3) continuous improvement, including for environmentally conscious products, and (4) pollution control.

(Reference: http://www.fdi.com/about_us/environmental.html)

Fujirebio Europe N.V. (FRE)

FRE, based in Europe, focuses primarily on the fields of infectious disease and Alzheimer's, for which the company excels at developing, producing, and selling various products. FRE acquired ISO 14001 (2004) certification in 2013. Environmental activities at FRE are deployed under a system that has been integrated with the quality control system, and the company is working towards set goals of compliance with legal requirements and continuous improvement. In March, 2017, FRE acquired ISO 14001(2015) certification. A major activity at FRE is to perceive energy consumption as an important environmental aspect, and hence the company is currently engaged in a review of air-conditioning equipment. FRE is also looking closely at methods staff uses to commute.

(Reference: <https://www.fujirebio-europe.com/about-fujirebio-europe/fujirebio-europe-and-iso-14001-standard>)

Fujirebio Taiwan Inc. (FTI)

FTI, one of Fujirebio's bases in Asia, is responsible for the production of certain Fujirebio products. FTI maintains ISO 9001 and ISO 13485 certification, and has set up a system to ensure it complies with Good Manufacturing Practices (GMP). Although FTI has not acquired ISO 14001 certification, it continuously commits efforts towards fundamental environmental activities, some of which include compliance with local environmental laws and regulations, trash separation, reuse of office paper, and continuous improvement of business efficiency.

Fujirebio Diagnostics AB

Fujirebio Diagnostics AB is a subsidiary of FDI. Based in Sweden, the company is engaged in the production and sale of clinical diagnostic reagents, reagents used in research, and raw materials. Fujirebio Diagnostics AB carries out environmental activities in accordance with FDI practices.



Message from the Environmental Manager

I would like to start by mentioning how pleased I am that we could prepare and deliver this environmental report to our valuable stakeholders. Thank you for taking the time to read it.

During the past year we have pursued three major themes: (1) preparing to acquire ISO 14001:2015 certification, (2) committing efforts to environmental aspects related to business, and (3) strengthening cooperative bonds between Fujirebio and SLR, a Miraca Group company.

While we pursued (1) and (2) in concert with one another, (2) has been a major theme at Fujirebio for the past three years. In the first two years, our priority was to better understand the objectives and issues surrounding environmental efforts, and during this time much of our activity was limited to featuring environmental issues as the theme in our yearly Environmental Discussion. From this fiscal year, we will continue to make even more meaningful progress. We have taken on the challenge of not merely talking about environmental efforts, but rather integrating them into our day-to-day activities. We have established numerical targets, an action plan, and are realizing tangible results. This includes acquisition of ISO 14001:2015 in October 2017, which was made possible due to our efforts to date anticipating the spirit of the standard.

The issue for us now is reexamining our EMS operations based on ISO 14001:2015. By reducing the burden on the environmental activities themselves, we will create an environment for departments (divisions) to devote their energy to efforts aimed at the environmental aspects related to our business. As part of this, this year we have been performing a review of EMS operations within our Sales Division.

For the past two years we have also focused on strengthening cooperative bonds with SRL, another key company in the Miraca Group, and this coordination also includes environmental activities as part of Miraca Group's CSR activities. Although our business formats differ — one being in manufacturing and the other in the service industry — we have found innovative ways to interweave our day-to-day environmental activities around the common points of embodying the unique traits of Miraca. As a result, we have realized a number of meaningful collaborations that have included ecodriving activities, Scope 3 emission compliance, and interactive tree-planting tours. With the Group's CSR activities framework set in motion in 2017 we will further contribute to Miraca Group's environmental activities in cooperation with SRL.

We intend to continue to promote further enhancement of Miraca Group's environmental activities, as well as our responses to aspects of our business that directly affect the environment. As always, we appreciate and welcome the encouragement we receive from our valued stakeholders. Thank you for your support.

Katsuhiko Yamamoto

Environmental
Manager Fujirebio Inc.



Bridging People to Healthcare

Miraca
Group



Head office: Shinjuku Mitsui Building, 2-1-1 Nishishinjuku, Shinjuku-ku,
Tokyo 163-0410
TEL: +81-3-6279-0800 FAX: +81-3-6279-0854
<http://www.fujirebio.co.jp/english>