

Miraca Group

CSR Report 2018



Bridging People to Healthcare

Mission

Create new value in Healthcare and contribute to the prosperity of people.

Vision

Develop innovative diagnostic solutions to enhance trust in Healthcare and drive its evolution.

Value

- Customer Centricity** - Respond to medical care and healthcare needs, exceed customer expectations
- Creation of New Value** - Strive for global value creation first and foremost; take risks to challenge and innovate
 - Think and execute with global perspective
 - Lead with result-orientation, speed and efficiency
- Sincerity and Trust** - Be sincere and trustworthy, act with transparency
 - Communicate openly and constructively, beyond the boundaries
 - Gain and maintain trust from all stakeholders
- Mutual Respect** - Respect diverse values, experience, expertise and teamwork
 - Praise and celebrate challenges and successes
 - Grow and help others to grow

Our Approach to CSR

CSR Philosophy

Its management and employees fully recognize that corporate activities go hand in hand with a wide-range of stakeholders, within and outside of the organization, and we commit to honor our social responsibilities as corporate citizens.

CSR Policy

We will carry out such activities that help to enhance our corporate value.
 We will commit ourselves to continue activities within our capacity.
 We will encourage our employees to participate in those activities.

Four Areas of Activities

- Healthy and prosperous society** Develop and distribute high quality and world-leading products and services
- Human resources** Help our employees develop problem-solving and value-creating capabilities
- Environment** Provide environmentally-friendly products and services
- Local communities** Live together in harmony with local communities through philanthropic actions

* For details on the four areas of activities, see "Materiality" (p.19-20).

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<p align="center">Editorial Policy</p> <p>The Miraca Group published the CSR Report 2018, the first report of its kind. The aim of this report is to give a better understanding of the Group to all our stakeholders and provide an opportunity for further dialogues by sharing our vision, CSR activities and efforts toward delivering more value to our stakeholders.</p>	<p>Period Covered April 1, 2017 – July 31, 2018 (includes some information outside the period given above)</p> <p>Organizational Scope Miraca Holdings Inc. SRL, Inc. Fujirebio Inc.</p>	<p>Reference Guidelines</p> <p>GRI Sustainability Reporting Standards (GRI: Global Reporting Initiative)</p>
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The Miraca Group Transforms for Sustainable Growth



Shigekazu Takeuchi
Director, President and Group CEO
Miraca Holdings Inc.

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The time for change is now

The Miraca Group's mission is to serve public health and medical care by identifying the various *messages* sent by the human body using clinical testing and providing the outcome to healthcare providers. Our greatest goal, as well as the cornerstone of our corporate responsibility, is to make sure that our employees are constantly aware of this responsibility to create a healthier and more prosperous society through our business. To be able to keep fulfilling this mission, I believe that the Miraca Group must drastically change itself.

Drastic reform is vital to meet various changing needs

Our business environment and the expectations of our stakeholders have been changing considerably. Medical advances in gene therapy, including cancer genomics, and regenerative medicine are developing at a rapid pace. Our clinical testing will naturally have to keep up with these developments. In the world of new medical fields, we ourselves must also evolve so that we can continue to offer value as a Group. And it is not only medical care that has changed. Society's expectations, awareness and attitudes have been

changing significantly.

With the intention of radically transforming the Miraca Group business and the awareness of its employees from the bottom up, we designated the year 2017 as a year of renewal and named the mid-term plan Transform! 2020, which started that same year. We also formulated our Mission and Vision, and Value at the same time. This all came about because of our sense of crisis from the shifting terrain.

Plans for a new laboratory, a symbol of change

One of our projects symbolizing the creation of new value in healthcare written in our Mission is the Miraca Research Institute, established in 2017. The institute's goal is to produce the seeds for the next-generation businesses over the long term by focusing on basic research.

In June 2018, we also announced the plans for a new central laboratory dedicated to innovation. This facility is not intended to be just another laboratory with improvements. We want to fundamentally overturn the way testing have been conducted so far by aggressively introducing AI technology and automation to reduce turnaround time (TAT) and human error, as well as enhance the quality of testing. We also plan to set up an R&D annex to nurture R&D work that will generate the seeds of our future businesses. To prevent downtime in our clinical testing, we will take measures to ensure business continuity in the event of earthquakes by using a base-isolated structure for the building itself.

CSR approach changes employee awareness and behavior

Ultimately, the key to transformation is people. We are now concentrating our efforts on intangible reforms to change the awareness and behavior of our employees.

Instead of sticking to our old ways of doing business, working in silos within our companies and resting on our successes, we need to take risks and initiate change, and to commend both taking on difficult challenges and success. For such corporate culture to take root, I believe that our fundamental approach to CSR — to respond to medical care and healthcare needs and exceed customer expectations, and to gain and maintain trust from all stakeholders — plays an important role. That is why we have incorporated all these in our Value, which was established in 2017. Rather than fear change, I want our people to enjoy it and take steps toward new directions. The Miraca Group will once again work together to create new value in healthcare.



Developing Healthcare, Creating a Healthy and Prosperous Society

Cutting edge testing for medical breakthroughs

SRL's mission is to help develop healthcare and create a healthy and prosperous society through clinical testing. As healthcare changes, our roles and responsibilities in fulfilling that mission have been growing even more. Our company has grown by specializing in esoteric testing, such as those related to genes and chromosomes. However, the remarkable medical progress in recent years now require more advanced skills and technologies in clinical testing, such as those for cancer genomes.

The need for not just specialized but also personalized medical treatment to address individual patient symptoms will surely grow as well. Identifying the optimal treatment can help curb excessive medication for the patient and ultimately help reduce the soaring healthcare costs for society. I believe that clinical testing plays a major role here, and our company's experience, skills and excellent testing system will then come into its own.




Growing role in local healthcare infrastructure

Another critical change has been the growing importance of community healthcare. We believe that providing highly specialized clinical testing quickly to general practitioners and clinics in primary care helps support the operations of local medical institutions and ultimately leads to improved services for patients. Having a wider range of diagnostic tests available at nearby medical institutions can also help in disease prevention and early detection by increasing medical examination rates. Working to achieving this goal, we opened two satellite laboratories: SRL Setagaya Laboratory and SRL Advanced Lab. Azabu, in 2018. Thus, we are able to reduce turnaround time (TAT) from taking the test to returning the test results. And by being in closer proximity to medical institutions, we are also more responsive to their needs. Leveraging group synergy and strengthening our collaboration with Fujirebio, we will continue to offer the best services to medical institutions.

Wholehearted performance leading to CSV

As we grow, we realize that our role in society also grows. It is essential that we fulfill our social responsibilities by performing our work wholeheartedly and reliably to deepen the trust of patients and medical institutions. By positively striving toward this goal, I believe that we can work toward Creating Shared Value (CSV) and enhance our corporate competitiveness.

Shunichi Higashi
President and CEO
SRL, Inc.

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Providing Products and Services to Solve Healthcare Issues Globally

Reagents for infectious diseases

The role of testing is to make the invisible world visible. Since its founding, Fujirebio has continued to serve global healthcare by offering high-precision testing equipment and highly sensitive reagents that measure trace amounts more reliably.

The world's first syphilis reagent launched by Fujirebio in 1966, Treponema Pallidum Hemagglutination (TPHA) kit, is still trusted as the golden standard in countries across the world more than 50 years later. TPHA and other manual reagents have played a major role in the fight against infectious diseases, since they are easy to adopt in countries where the use of automated testing instrument is difficult due to the economic situation or lack of infrastructure. Continuing to provide such simple, low-cost and highly accurate products is in our roots and is our social responsibility as well.

Pinpointing medical needs in a diversified world

Worldwide trends in healthcare show that dementia, cancer and lifestyle-related diseases have grown amidst economic growth and aging populations, bringing about social issues beyond infectious diseases. Fujirebio develops unique, new products and services such as the world's first Alzheimer's diagnostic product launched in Europe, which can assay with a fully automated system. We promote disease mechanism awareness that hepatitis B progresses to liver cirrhosis and then to liver cancer, and offer a hepatocellular carcinoma marker reagent in China,

while we established a local subsidiary in India. Under Fujirebio Holdings founded in 2017, we strive to serve healthcare by pinpointing the medical needs in various countries.


Japan also has various healthcare issues, and improving the sustainability of local healthcare is becoming more important. Together with SRL, which handles clinical laboratory testing, Fujirebio can make the best proposals as a Miraca Group company to medical institutions and healthcare professionals and support local healthcare infrastructures through testing.

Developing unique products toward new value creation

The products and services offered by Fujirebio and the Miraca Group exist to support a healthy and prosperous society. To keep fulfilling our social responsibilities, we comply with the relevant laws and regulations and reduce our environmental impact, as we wholeheartedly conduct our daily tasks. We will continue creating new value through the development and provision of unique products and collaboration within the Group.



Yoshihiro Ashihara
President and CEO
Fujirebio Holdings, Inc.

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Value offered by the Miraca Group (1)

Untiring efforts to identify various patient illnesses through esoteric testing



Helping treat patients suffering from various diseases

SRL offers testing services for lung cancer using the Next Generation Sequencer (NGS) for the cancer genome genetic testing. The NGS can analyze tens to hundreds of genes simultaneously, requiring only a small amount of specimen and to simultaneously detect genetic mutations with rates of about one to two individuals in 100. This leads to more effective medications and makes it possible to control medical costs on companion diagnostics for cancer which tend to be expensive.

For rare diseases with few patients, research on diagnostics and treatments progresses more slowly than other diseases because of economic issues. As the origin of our corporate name — Special Reference Laboratories — indicates, our aim is to be the reference laboratory for special testing of clinical specimens. At SRL, we actively work to fill the unmet medical needs for diseases which there are still no available effective treatments for, including rare diseases.

We will continue to fulfill our responsibility as a leader in clinical testing according to our philosophy of placing equal importance to testing all diseases, whether chronic or rare, even under many difficulties such as the need to develop our own tests because of the lack of research data.

Aside from conducting evaluation tests in regenerative medicine, we also provide statistical data of virus tests to the Ministry of Health, Labour and Welfare (MHLW), as we work not just for the company but also for the greater good of medical care.



Comments

An all-around, comprehensive testing company

The strength of SRL is not only in being able to accept various kinds of clinical testing without bias, but also in its positive attitude toward working on new testing. As a comprehensive testing company, we will continue to capitalize on this strength and support the development of healthcare as a whole.

Hiroki Beppu

General Manager, Genetic & Chromosome Analysis Department, Testing Division SRL, Inc.



Esoteric testing

Clinical testing that are typically related to genes or chromosomes. Often requiring cutting edge technologies and facilities, these are often outsourced to large-scale testing centers such as SRL even by large hospitals.



Value offered by the Miraca Group (2)

Active service to local healthcare through new laboratories

Local clinics are anticipated to grow even more important as the Ministry of Health, Labour and Welfare (MHLW) promotes differentiation and collaboration in medical care functions.

At SRL, we have opened new satellite laboratories with the aim of helping community healthcare to cope with such changes. Tests which used to be carried out in our laboratory in Hachioji City, Tokyo can now be conducted nearby. Two facilities opened in March and May 2018 respectively: SRL Setagaya Laboratory and SRL Advanced Lab. Azabu.

Satellite laboratories achieve earlier diagnosis, being able to report testing results in 30 minutes at the shortest for general tests and two hours for standard tests. Providing testing results quickly leads to early treatment and early recovery, and enables us to meet the testing demand from clinics that will assume the function of local primary care physicians.

The Setagaya Laboratory also has the facilities to offer test staff training to help improve the quality of clinical testing and raise professional awareness in clinical testing by close contact with doctors and patients.



SRL Advanced Lab. Azabu also has a showroom equipped with the services offered by SRL to general practitioners.



Comments

Strength in being community-based

One feature of community-based satellite labs is that we can accompany sales personnel in visiting our client medical institutions. By obtaining valuable feedback directly from doctors, we can determine their immediate needs as well as promptly offer our professional expertise and accommodate requests, as we strive to serve local healthcare.

Noriko Maruyama

Senior Manager, Minato Testing Section, Tokyo Testing Department, Sales Division SRL, Inc.



Helping develop local healthcare by providing quick testing results



Value offered by the Miraca Group (3)

SERODIA® helps control infectious disease globally

The trend in clinical testing in Japan is toward automation using dedicated machines, which continues to accelerate. However, global trends show that many countries and regions, particularly developing countries, mainly conduct testing manually.

The Treponema Pallidum Hemagglutination (TPHA) kit, which Fujirebio first commercialized successfully in 1966, was recognized as a groundbreaking product for its high reliability and simplicity. Since then, Fujirebio has globally launched various reagents for infectious diseases.

TPHA kit's successor, SERODIA®, is now widely used as a standard syphilis test kit worldwide. Forty years later, it is still highly regarded globally for its simplicity, which does not require expensive machines, electricity or other infrastructure, and for its accuracy, which prompted its adoption by WHO and the National Institute of Infectious Diseases in Japan.

As a leading manufacturer of test kits for infectious diseases, Fujirebio will keep creating even better products to reduce the number of people suffering from infectious diseases worldwide.



Shipping the gold standard to over 80 countries

SERODIA® is a globally successful test kit that has been shipped to over 80 countries. In addition to its simplicity that requires no special equipment, it is also valued for its stable assay results and ease of handling of the reagents. Listed in the testing guidelines of various countries, it is truly the gold standard of syphilis testing.

Naoaki Tamura

Senior Manager,
Global Sales Section,
Global Sales Department,
Fujirebio Inc.



The standard for simple, high-quality syphilis test kits



Value offered by the Miraca Group (4)

Innovative reagent LUMIPULSE® HBsAg-HQ

Hepatitis B virus reactivation in patients under chemotherapy or immunosuppressive cancer therapy has become an issue in recent years. Previous testing had speed, cost and sensitivity problems, and a more suitable testing method was medically needed.

However, improving the performance of the conventional approach and techniques was limited. Thus, Fujirebio devised a new development approach. With trial and error, researchers succeeded in developing a reagent over 10 times more sensitive than conventional products — the LUMIPULSE® HBsAg-HQ. Its enhanced sensitivity has been proven to detect antigens that could not be detected by previous testing, greatly contributing to diagnostic accuracy. It can also quickly provide the results on the same day and at low cost. Its effectiveness has been widely recognized, and is cited in the Japan Society of Hepatology guidelines.

We will continue applying our developmental and technological prowess on testing to help solve societal issues.

Testing reliability with over 10 times more sensitivity



LUMIPULSE®
HBsAg-HQ
Product
Development
Team

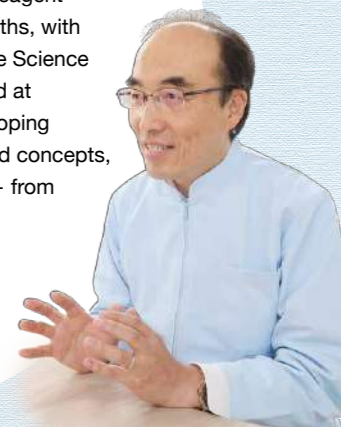


Winning the Japan Society of Clinical Chemistry's technology award (FY 2017)

The award recognized our technological expertise's potential contributing to clinical chemistry. Marked by high sensitivity and lower mutation risk, this reagent brought together the Fujirebio Group's strengths, with the prototype developed at the Advanced Life Science Institute and product development conducted at Fujirebio. Leveraging our experience in developing approaches that widely differ from established concepts, the Group will continue to serve healthcare — from research to development and production.

Katsumi Aoyagi

Director and Division Head,
Research and Development
Division,
Fujirebio Inc.



Value created by the Miraca Group (1)

Perceiving all our stakeholder's expectations invisible through business



The Miraca Group logo for social action initiatives

Strategic philanthropy in the four areas of activities

In this report, philanthropy is defined as the scope of activities that are not directly connected to business but have high social value, such as charity work and corporate patronage.

The Miraca Group aims to become a corporate group with forward-looking and distinctive CSR activities in Japan by 2020. We have united to promote philanthropic activities that were left up to the Group companies or divisions before. This strategic program embodies the Miraca Group's four areas of CSR activities and leads to future business and corporate brand improvement by enabling us to perceive society's expectations, which we cannot directly experience from daily work. For a healthy and prosperous society, we focus on support for patients with intractable children's diseases, intractable/rare diseases and cancer.

For human resources, we conduct employee work style reform, promote diversity and human rights. For the environment, we implement forest village conservation near the Hachioji Office, and for local communities, a wide range of activities from community development and children's healthy development to aid to developing countries and disaster-stricken areas.



Aiming for 1,000 employees participating with more qualitative contributions

We believe philanthropic activities are essential for companies that are supposed to address social issues.

We plan to work intently on over 40 activities a year that help address various issues in Japan and abroad.

Grouping activities into contribution or development, we will raise both the quality and quantity of activities to provide a wide range of opportunities for employees to help solve social issues. We also aim to grow our core business of clinical testing as our employees gain knowledge from their experience with the latest trends in society.

Shigeto Ohtsuki

Executive Officer,
Human Resources and CSR
Miraca Holdings Inc.



Philanthropy: Volunteer work by the private sector for public benefit, especially corporate social contributions (including donations).

Value created by the Miraca Group (2)

Aiding disaster areas with both donation and volunteer work

The Miraca Disaster Relief Donation Scheme



With the 2011 earthquake and tsunami in Japan, local volunteering and donating to help disaster-stricken areas have become more common. To enable activities across the whole Group, the Miraca Disaster Relief Donation Scheme was formally set up in January 2018 by the Executive Board as a platform for aiding disaster areas. Six months later in July 2018, this scheme was initiated for the devastating torrential rains in western Japan. The donation matching scheme was conducted through cooperation between employees and the company. Employees declare donations via a dedicated website on the group portal and the company contributes an amount greater than the total to NGOs and public organizations. We donated about 610,000 yen (total as of July 31, 2018) to Civic Force, an NGO providing swift and proper assistance during disasters in Japan. The scheme will continue for some time, with the next donation given to victims through public organizations. Along with encouraging long-term employee donations, we also provided disaster relief support through volunteer work conducted together with the victims in disaster areas.



Dedicated website of the Miraca Disaster Relief Donation Scheme in the group portal. It shows employee donation application form, recommended recipients and other information.

Comments

Volunteering early for western Japan torrential rains disaster

When we received reports of the devastation caused by the heavy downpours in western Japan in July 7, 2018, we wanted to go and offer our help as volunteers. But by the 9th, volunteer centers at various areas were still being set up and acceptance from outside the prefectures was limited. A call came out for disaster relief volunteers on July 15 and 16 at the Takahashi City volunteer center in Okayama Prefecture. Quickly recruiting across our group companies in Japan, 18 volunteers in all were able to finish the work over the two days.

Hideyuki Itsuji

General Manager,
CSR Promotion Department
Miraca Holdings Inc.

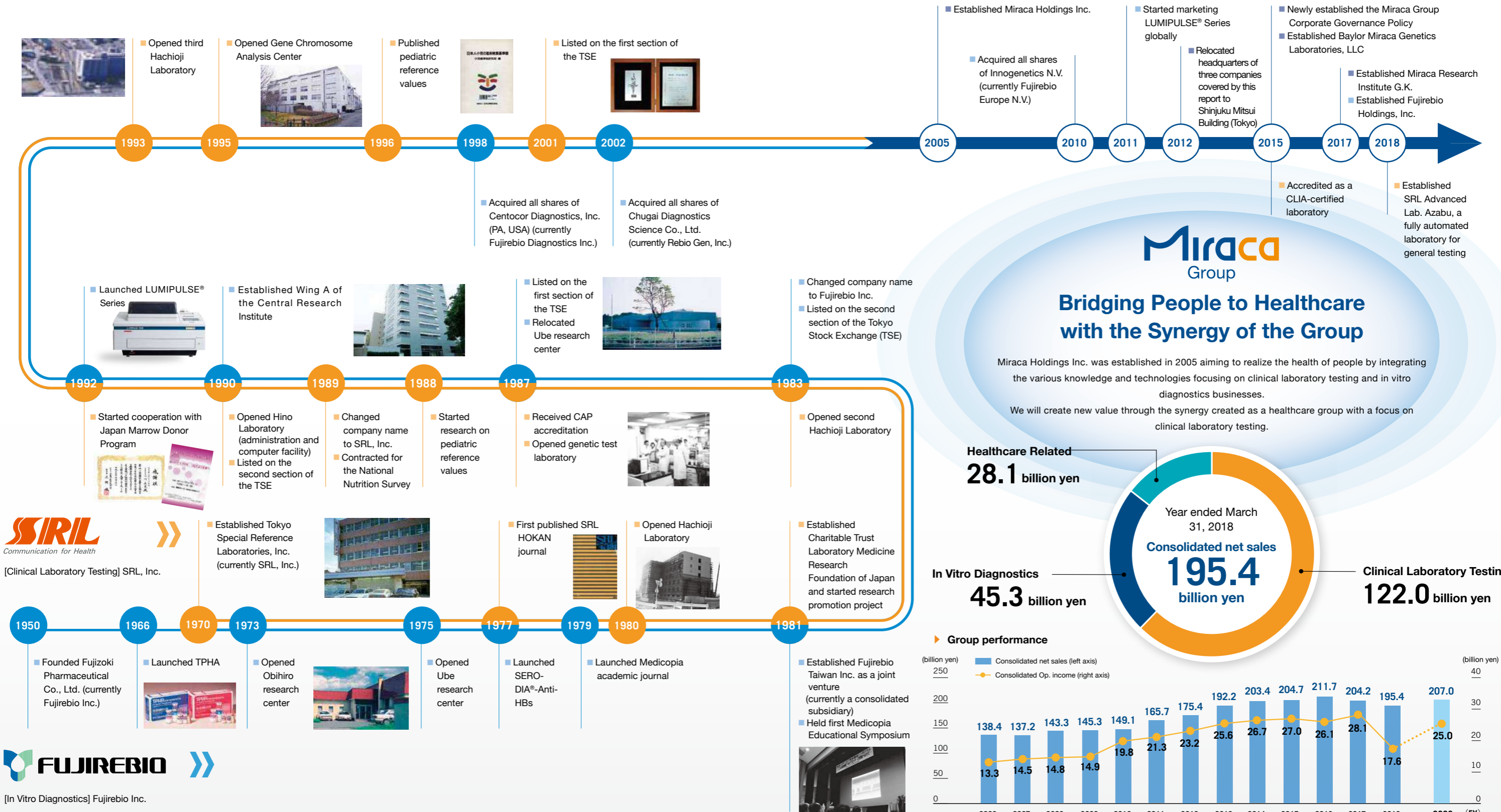


We were exhausted working at over 37°C under the blazing sun, but were happy to help locally and did our best for early assistance.



We create new value as a healthcare group with a focus on clinical laboratory testing.

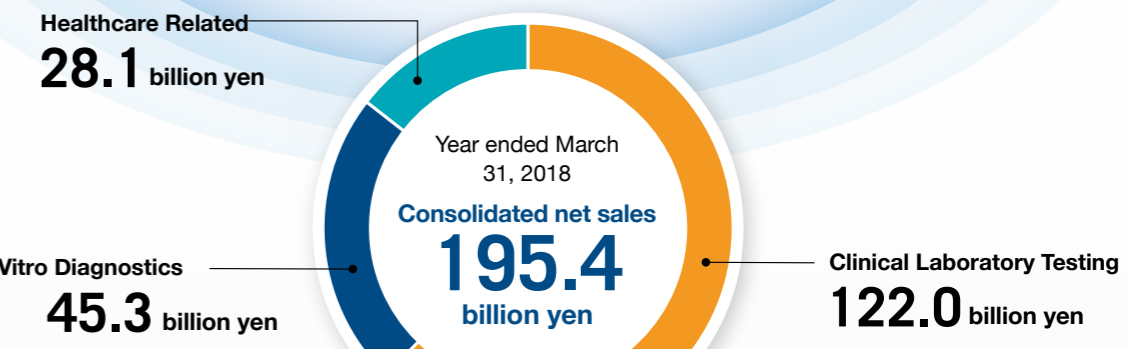
The Miraca Group has always been conscious of the life behind one specimen and one testing and working to enhance the quality of our testing to offer further better products and services for more than 50 years.



Miraca Group
Bridging People to Healthcare with the Synergy of the Group

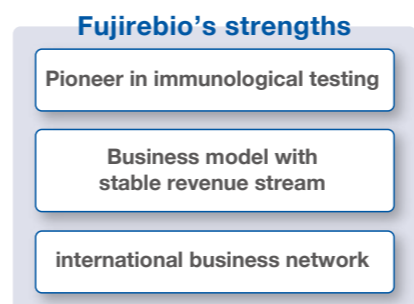
Miraca Holdings Inc. was established in 2005 aiming to realize the health of people by integrating the various knowledge and technologies focusing on clinical laboratory testing and in vitro diagnostics businesses.

We will create new value through the synergy created as a healthcare group with a focus on clinical laboratory testing.



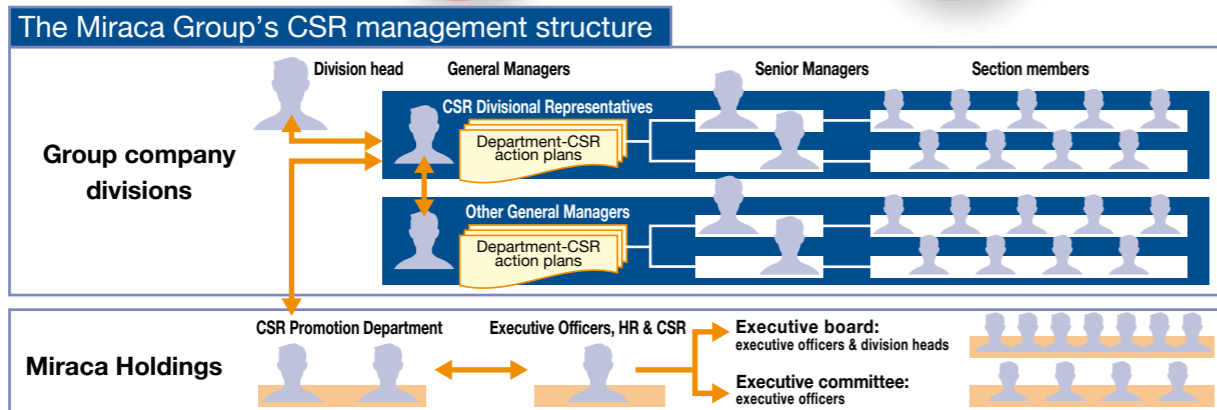
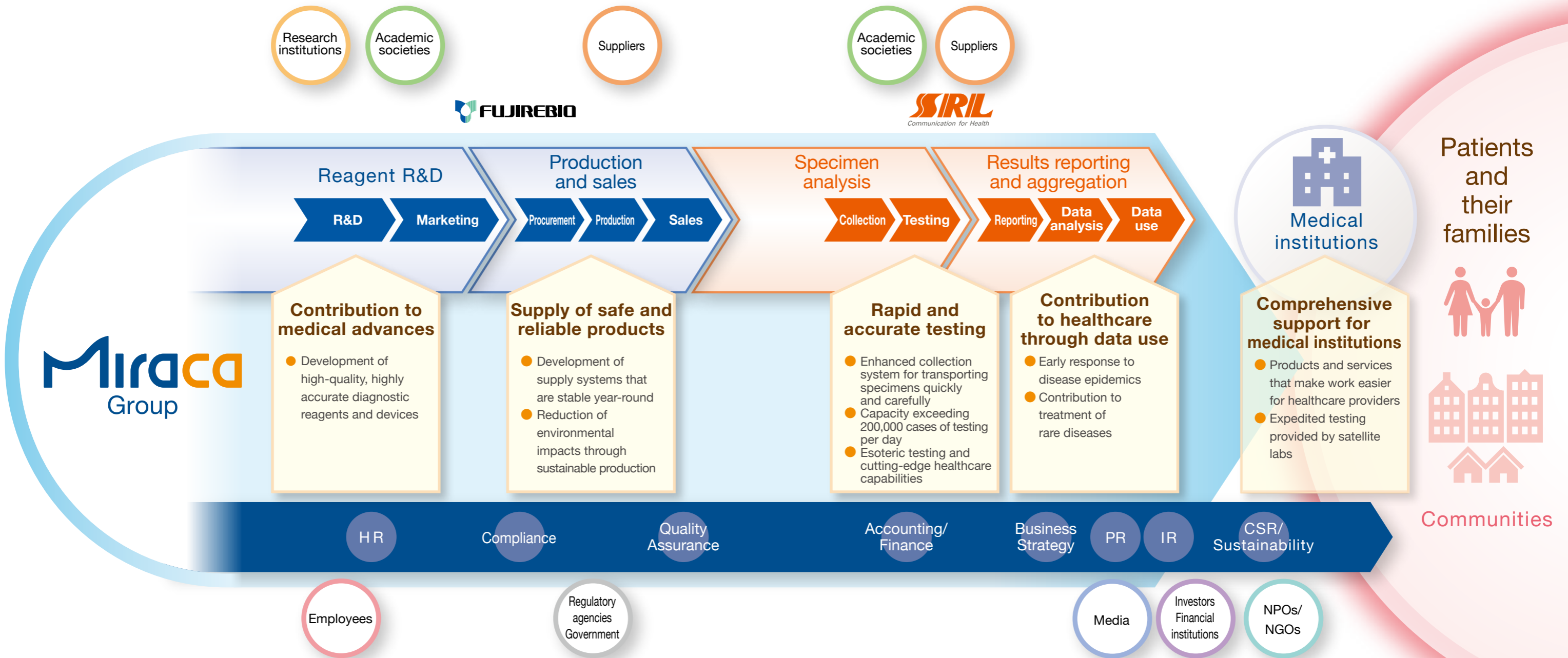
*The figures are rounded to the nearest 0.1 billion yen

We're harnessing group synergies to tackle and solve social challenges in healthcare.



SUSTAINABLE DEVELOPMENT GOALS
 *1 Sustainable Development Goals (SDGs)
 The SDGs are 17 global goals and 169 targets for the year 2030 adopted by the United Nations in September 2015. All stakeholders – developed and developing countries, governments and private industry – are urged to take action to achieve the goals.
 3 GOOD HEALTH AND WELL-BEING
 *2 Goal 3
 Ensure healthy lives and promote well-being for all at all ages

All departments and employees work to build a unique clinical testing value chain.



CSR management

A CSR Divisional Representative in each group company division (typically a General Manager) serves a primary role in matching CSR activities to operations and developing and implementing department-CSR action plans with Division head and other General Managers.

CSR Divisional Representatives also communicate regularly (monthly in fiscal 2017, bi-monthly in fiscal 2018) with the Miraca Holdings CSR Promotion Department, which supports the group's CSR activities and organization.

Miraca Group's Material Issues

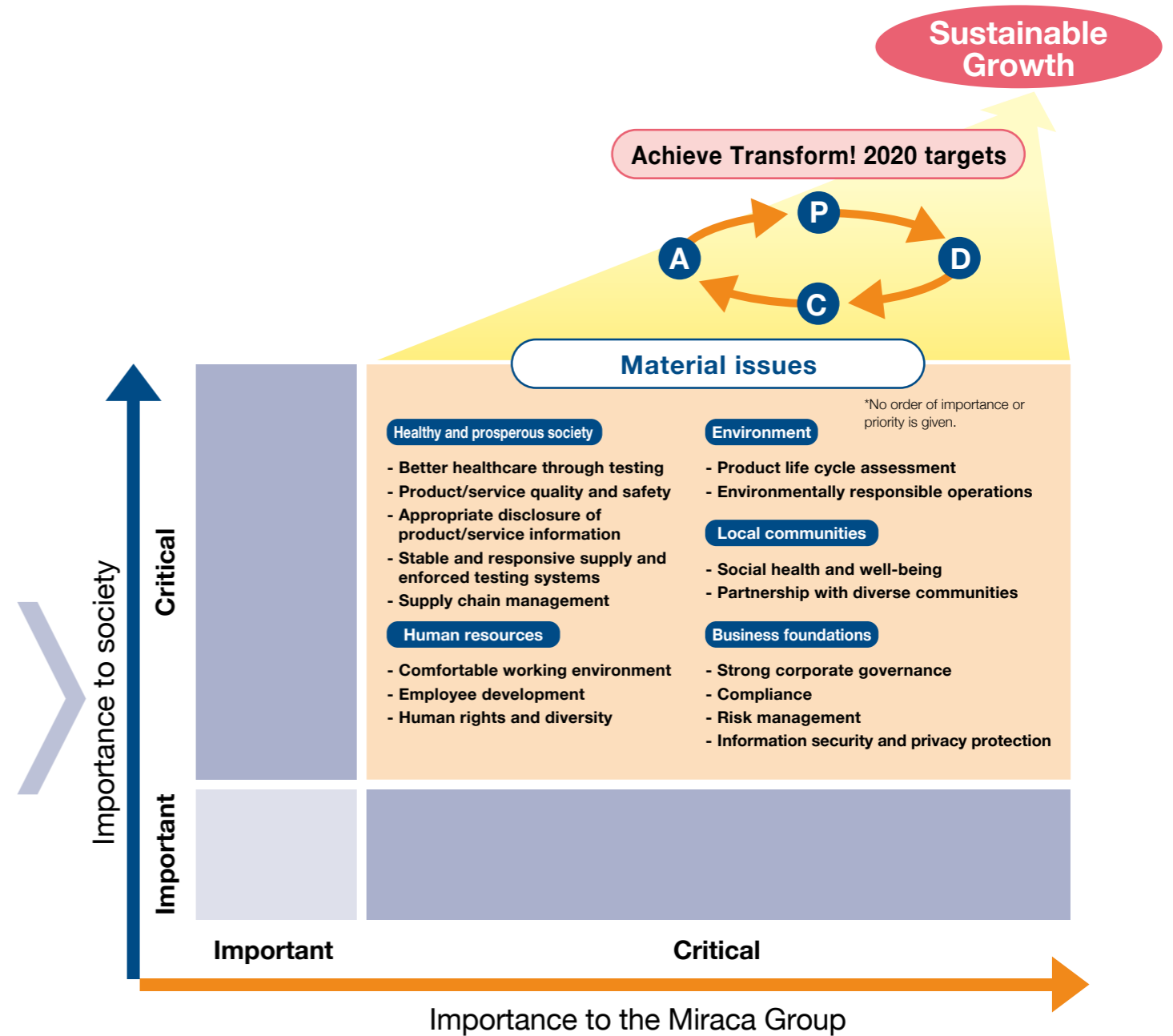
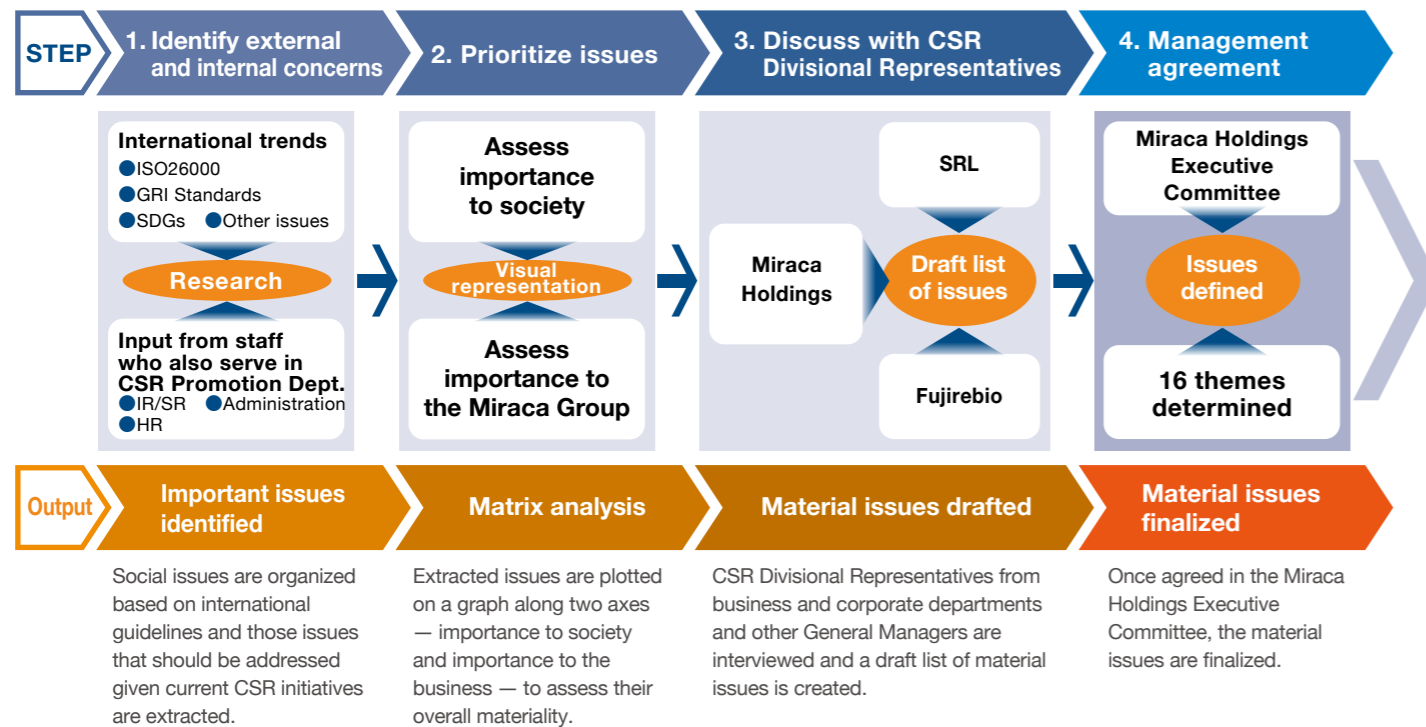
Defining the issues

The Miraca Group strives to deliver the value of safety and peace of mind to its diverse stakeholders. We do this by contributing to advances in healthcare through our core business of clinical testing (clinical diagnostic products, laboratory testing, and related services) and through various social responsibility initiatives guided by our Mission, Vision and Value.

To that end, we have defined the material issues that, in light of global challenges, the Miraca Group must prioritize both to grow sustainably and to foster a sustainable society and environment.

Going forward, we will execute specific action plans aimed at increasing the impact of these initiatives and building a strong Miraca brand.

Materiality assessment process



Four action areas, business foundations, and the SDGs



Healthy and prosperous society

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 diagnostics products, laboratory testing and other services, and, as a leading Japanese brand, make those products and services available to people around the world.

3 GOOD HEALTH AND WELL-BEING

Human resources

Help our employees develop problem-solving and value-creating capabilities

For the betterment of our global society as well as the 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.

5 GENDER EQUALITY **8 DECENT WORK AND ECONOMIC GROWTH** **10 REDUCED INEQUALITIES**

Environment

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.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION **13 CLIMATE ACTION**

Local communities

Live together in harmony with local communities through philanthropic actions

We implement community activities such as charitable donations, public-interest activities and educational activities, and encourage each employee to join them to create harmony with local communities.

3 GOOD HEALTH AND WELL-BEING **17 PARTNERSHIPS FOR THE GOALS**

Business foundations

Raise corporate value through broad stakeholder collaboration

As a company with a committee-based governance system, we ensure fair, timely, and transparent decision-making that supports healthy and sustainable business management and raises corporate value.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Healthy and prosperous society

Better healthcare through testing

To help solve healthcare challenges in developed and developing countries, we strive to develop and market clinical diagnostics products, laboratory testing, and related services that are invaluable for disease prevention, early detection, and treatment decision-making.

R&D for higher-quality clinical testing

The Miraca Group pursues innovation that supports advances in healthcare. In September 2014, SRL introduced a DNA methylation analysis test that can be used to predict recurrence and prognostic risk for gastric cancer and neuroblastoma. The results of this test are useful for selecting a course of treatment and, if determined malignant or a case of multiple cancers, deciding a more rigorous treatment. In January 2017, Fujirebio began sales of Lumipulse® G β-Amyloid 1-42, a reagent kit in Europe for use with the LUMIPULSE G System and expected to make testing easier and more efficient for in-office laboratories.

By developing new testing that draws on our long-developed unique technological strengths, we will pursue continued quality improvements and medical progress.

● R&D expenses by segment (million yen)

	FY2015	FY2016	FY2017
R&D expenses (consolidated)	5,702	4,748	5,365
In Vitro Diagnostics	5,254	4,450	4,740
Clinical Laboratory Testing	447	297	251
Miraca Research Institute G.K.	—	—	373

*Numbers are rounded down



Prevention of mother-to-child HTLV-1 virus transmission

Fujirebio has developed and marketed a test kit that uses INNO-LIA®HTLV to prevent mother-to-child transmission of the HTLV-1 virus, a suspected cause of adult T-cell leukemia and other diseases. Compared to existing testing methods, the product reduces “indeterminate” test results, enabling more mothers to breastfeed and more suitable nutritional guidance. Thanks to its superior accuracy, the test kit has also received a recommendation from the academic society of the Japan Association of Obstetricians and Gynecologists and was included in diagnostic guidelines for HTLV-1 transmission for use in obstetric examinations.



Collaborative research

The Miraca Group actively collaborates with third-party researchers to further improve testing technologies. Believing that closer coordination between testing and treatment brings us closer to solutions, we cooperate with pharmaceutical companies and other parties to

develop testing methods and reagents that match their needs. In particular, we hope to contribute to the improvement of clinical trial tests for development of drugs that satisfy unmet medical needs.



Collaborating on early disease detection and prevention

Ajinomoto Co., Inc. has developed a marker that can screen for seven types of cancer with a single blood sample. Called *AminoIndex™ Cancer Screening (AICS™)*, the screening has been administered to a steadily growing number of patients since its release in 2011, thanks in part to the support of SRL, with its extensive hospital and clinic network. In November 2017, Ajinomoto released *AminoIndex™ Risk Screening (AIRS™)*, which adds assessment of four-year risk of developing diabetes. The screening will make further contributions to early disease detection and prevention.

Eiji Maruo
 Manager
 AminoIndex Group,
 Business Strategy & Planning Dept.
 AminoScience Division
 Ajinomoto Co., Inc.



Contributing to medical progress

To provide a forum of exchange between the clinical and preclinical medical fields, Fujirebio has held the Medicopia Educational Symposium annually since 1981 and also published Medicopia, an academic journal. In fiscal 2017, Fujirebio held the LUMIPULSE® Forum at 10 locations across Japan, offering physician talks on various themes and a presentation on how to use Fujirebio products. In fiscal 2018, the company organized an all-new Fujirebio Forum, based on requests from medical institutions that have introduced LUMIPULSE® and want to learn more about other facilities’ systems and how to approach quality control. This forum, held across Japan, was designed around the concept of going beyond mere promotion of Fujirebio’s immunology equipment and providing lectures “by lab technicians for lab technicians” to support their technical development. The Miraca Group also supports the MHLW’s “Prevent Hepatitis: It’s Up to You” program. By offering opportunities for practitioners and ordinary citizens to learn more about medicine and health, we’re promoting medical progress in Japan.

38th Medicopia Educational Symposium
1,400 attendees



38th Medicopia Educational Symposium (January 2018, Tokyo International Forum)

Fujirebio Forum (July 2018, Tokyo)



Improving healthcare in emerging countries

SRL offered guidance on clinical laboratory testing, lectures on theory and practice, and tours of laboratories in Japan to deepen understanding of the importance of testing and raise testing quality in countries such as India, China, Korea, and Thailand.

In India, for example, the company emphasized the importance of laboratory medicine among local students and practitioners by providing advice on how to draw blood and process blood specimens.

SRL also works to build trust with communities in its routine sales activities by suggesting solutions beyond laboratory testing based on experience, such as how to improve infrastructure and protect patient information.

By raising efficiency and quality with new testing methods and lab operations plans developed with local partners, and by actively proposing these solutions, SRL will continue to contribute to medical advances worldwide.



Tour of an SRL lab for government officials, physicians, and medical technologists from India (October 2017, Hachioji Laboratory)



Lecture on laboratory technology and cutting-edge testing

In India, SRL gave a lecture explaining the importance of clinical laboratory testing based on examples of the company’s ideas and initiatives for improving testing quality. It also introduced the company’s technologies and approach to cutting-edge testing. Feedback was favorable, especially regarding efficiency improvements and the elimination of human error from SRL’s initiatives in automation. Its technical prowess in genetic and chromosomal testing was also recognized, landing the company requests for outsourcing such testing to Japan.



Shuichi Uchiyama
 General Manager,
 Global Business Department,
 Business Strategy Division,
 SRL Inc.

Speaking on the state of clinical laboratory testing in Japan at the “Technical Training for Materializing International Diagnostic Business in India” (June 2017, New Delhi, India)

Healthy and prosperous society

Product/service quality and safety

To ensure the level of quality and safety in products and services that earns high satisfaction from customers, the Miraca Group complies with international laws and standards while striving to continually improve its quality management systems and provide specialized education to its employees.

Building a quality management system (QMS)

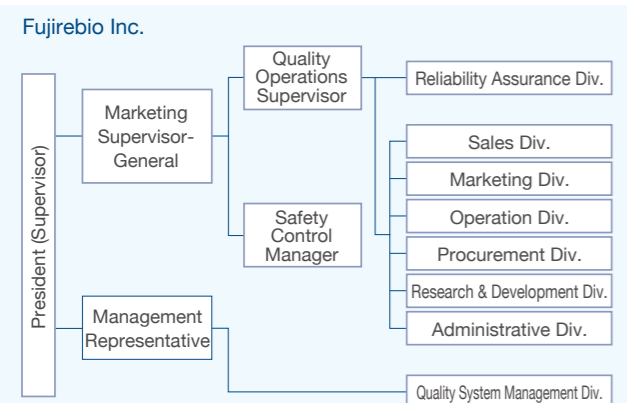
Fujirebio is certified to ISO 13485* under a group-wide quality policy. It also sets its own standards in addition to those required by laws and regulations of each country and region, releasing to market only products that pass quality tests. In fiscal 2016, the company created a QMS management organization in which a QMS Supervisor and Marketing Supervisor-General work to maintain and improve quality under the president's supervision.

SRL is certified to ISO 15189. Its QMS organization is not the same for all divisions but rather adapted to suit the size of each business segment. The Quality Assurance Committee works to address quality issues common to all divisions.

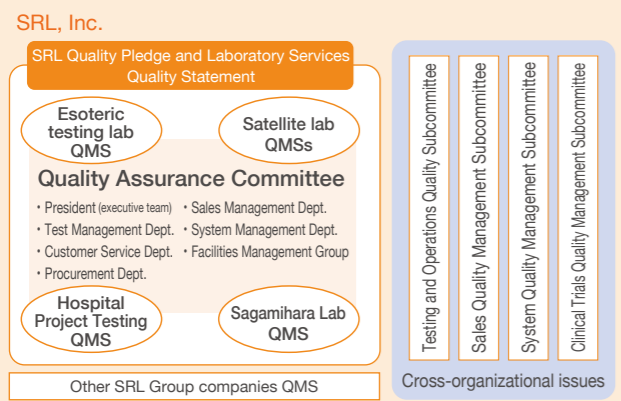
*An international standard on quality managements system specifically intended for the medical device industry



QMS organizational chart



From Fujirebio Rules on Quality Management Organizational Framework



Error prevention

Error prevention is a group-wide endeavor at the Miraca Group. Fujirebio, for example, prepares a manual of production procedures for each product to ensure strict adherence to clear instructions. In 2017 it strengthened its system of checks and increased the number of system alert settings in production processes. SRL, meanwhile, issued a new set of standards on complaints management and is building a system that captures all complaints from across Japan and uses them to prevent testing errors. Going forward, by taking seriously the feedback provided by our clients, medical institutions, we will work to develop and enhance systems that prevent testing errors and error recurrences.

Human error prevention courses (SRL)

FY	Participants	Free-discussion topics
2017	44	Heinrich's Law and near-miss management
2016	32	• What would you do in this situation? (Crossword) • Poster design session: "Always turn off heated-air dryers"
2015	35	How to preserve evidence from accidents
2014	47	Respectful handling of specimens

*A rule of thumb for occupational accidents which states that for every serious accident there are 29 minor accidents and 300 near misses.

Fast and effective customer support

Fujirebio strives for comprehensive customer support that leaves the medical institutions that use its products feeling assured and satisfied. Its call center troubleshoots questions 24 hours a day, 365 days a year. When in-person checks are required, field service engineers visit the site to provide fast and effective solutions.

Column Fujirebio customer support in emergencies

During the 2011 Great East Japan Earthquake and tsunami, Fujirebio's customer support teams continued operations even when the Tohoku Red Cross center closed down. Staying as close to customers and communities as possible, every representative takes care to collect information daily and respond to problems as independent agents.

Healthy and prosperous society

Appropriate disclosure of product/service information

We're developing centralized systems for managing information on product/service quality and safety. We also analyze customer feedback and questions, and strive to disclose and share it in a timely and appropriate manner with management and staff.

Clear and accurate test results

Conveying information clearly and accurately is a crucial part of providing laboratory services to medical institutions. SRL takes care to ensure that test results are easy for patients to understand, and easy for doctors to explain. For example, for cancer risk screenings that use the AminolIndex Technology, offered by SRL since 2011, additional material is provided explaining how to interpret the test results.

By providing information in this way, SRL contributes to a healthy and prosperous society.

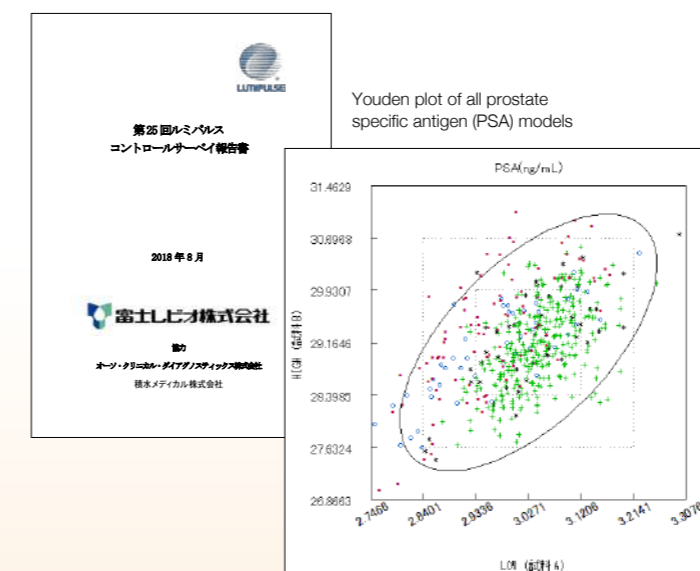


LUMIPULSE® control survey

Every year, Fujirebio conducts a control survey and holds a quality control reporting conference to ensure high testing quality at all medical institutions in Japan that use the LUMIPULSE® system. As of July 2018, the survey has been held 25 times and the conference 24 times. Of the 1,120 LUMIPULSE® systems installed across Japan, 895 facilities participated in total. In addition to quality improvements at laboratories, Fujirebio will also continue to proactively disclose and provide essential information for further improving the performance of its reagents.

Participation rate in control survey and reporting conference

85%



What is a control survey?

Compared to "internal quality controls" conducted by laboratories themselves, a control survey is a method of "external quality controls" which a lab's test data are analyzed in comparison to a certain minimum of test data obtained from other labs. Manufacturers use this method to improve the performance of tests at each facility where its devices are used.

[Background information]

Each clinical laboratory makes routine efforts to produce accurate test results for patients. However, the conditions in which each testing is carried out are not always uniform, creating potential variations in results.

[Benefits]

This comparison of data can help improve testing conditions and the performance of reagents used.

Healthy and prosperous society

Stable and responsive supply and enforced testing systems

Fast and reliable delivery of high-quality products and services is crucial for providing healthcare services responsibly. We're working to make our value chain more resilient at every step from product design and materials procurement to production, testing, and distribution.

Stronger supply and testing systems

The Miraca Group built business continuity plan (BCP) to prepare for various risk scenarios. For example, to reduce the risk of service delays caused by supply disruptions, we aim to create a system that makes it possible to distribute sourcing properly across multiple vendors.

In terms of responsiveness, SRL uses satellite labs across Japan to perform testing and submit results as medical institutions require. Back when specimens were consolidated at the Hachioji Laboratory, it took two to three days for results to arrive, whereas with the satellite labs, results now arrive sometimes by the same day. SRL is also working to develop reagents that shorten test turnaround times. By balancing stable quality with speed, we hope to make further improvements.



SRL Advanced Lab. Azabu

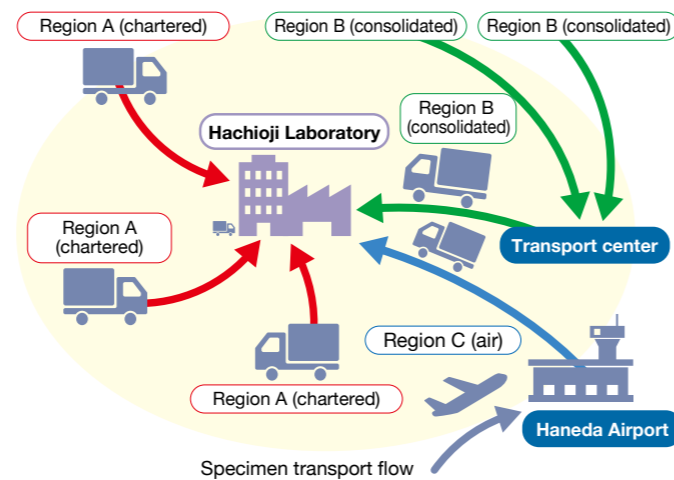


Setagaya Laboratory

Optimizing logistics to expedite specimen arrivals

Medical institutions prefer to receive their test results as early as possible. But for the laboratories that analyze specimens, an overlap in specimen arrival times can delay processing. SRL thus is working to expedite specimen arrivals. The company utilizes various transportation modes and routes to keep arrivals from concentrating in the period from 7 pm to 6 am.

It also prioritizes flexibility in case of unexpected shipment delays, as when caused by a snowstorm or typhoon or by an aircraft mechanical failure.



IT-powered operations

Fujirebio streamlines production by developing and installing new IT systems, such as the supply management and production planning systems recently launched and the manufacturing execution system scheduled for introduction this fiscal year by the Operation Division. These systems will be used to manage supply more precisely and adapt quickly to changes in demand.



Healthy and prosperous society

Supply chain management

In procurement, we consider social and environmental factors in addition to business continuity plan (BCP) and quality, cost, and delivery (QCD). Our goal is a resilient, sustainable supply chain built on ethical and fair transactions for mutual trust and shared success with suppliers.

Building sustainable partnerships

The Miraca Group is partnering with suppliers in its efforts to foster a healthy and prosperous society. Each year, the Procurement Division visits at least 10 suppliers internationally to verify their quality maintenance efforts and systems. Suppliers that can't be visited are given questionnaires on quality and environmental issues. By prioritizing suppliers in the selection process that have active CSR programs, such as those working to obtain ISO certification or develop rules on waste management, we hope to broaden our social impact. For that purpose, we also plan to develop a procurement policy that covers the entire Miraca Group.



Key questionnaire questions

- Have you established an environmental conservation policy and made employees aware of it?
- Do you have a planning process for achieving goals and targets?
- Do you set goals and targets related to environmental conservation?
- Do you provide environmental education or training for employees?
- Do managers review targets and plans to make continual improvements?

International standards and conflict minerals

Fujirebio sets policies to ensure that its procurement and purchasing operations are legally compliant and socially sound. Policies on environmental performance set criteria for product selection, stipulating that "measures to prevent environmental pollution are appropriate" from manufacture through delivery. When necessary, Fujirebio works with suppliers to meet the EU's Restriction of Hazardous Substances (RoHS) Directive and standards on conflict minerals. The company also has thoroughly reviewed purchasing provisions in the Medical Device Single Audit Program (MDSAP) regulations and works to comply with regulations in each country. Going forward, Fujirebio plans to address labor conditions and human rights as supply chain issues.

Purchasing and procurement policies (Fujirebio)

1. Select and purchase, under fair competition, products that meet quality requirements
2. Aim for mutual success and stability built on a long-term relationship of trust
3. Strive to reduce purchasing costs and stabilize procurement through purchasing from multiple sources
4. Establish and develop a purchasing organization that adapts quickly to changing demands from regulations, quality management, and environmental systems



Communicating with suppliers during the 2018 Hokuriku blizzard

The winter storm on the Sea of Japan coast had made conditions virtually impossible. Due to the closure of the Hokuriku Expressway and a massive stall on National Route 8, we arrived at the decision to sit still until road conditions improved. SRL, however, provided vital assistance by organizing the actions that could be taken by their sales offices and by Tonami. Our quick decision to take an atypical approach helped move things in the right direction, but it was the support of everyone involved that pulled us through. We are grateful for it.

Koji Hori
Executive Officer, Logistics Headquarters
Logistics Support Department Manager,
Logistics Solution Div.
TONAMI TRANSPORTATION CO., LTD.



CSR for Sustainable Growth

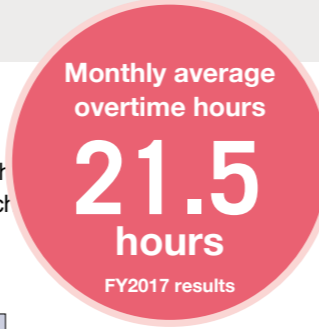
Human resources

Comfortable working environment

Aiming for a corporate culture that makes every employee feel fulfilled and satisfied, we are trying to create a work environment that promotes a good work-life balance and encourages different ways of working, taking into account employees' physical and mental health and safety in the workplace.

Productivity and efficiency improvement project

The Miraca Group is working on productivity and efficiency improvement projects with the main objectives of creating a better work environment and promoting efficiency. We must continuously improve the quality and efficiency of our work to keep offering new value in the medical field, so that customers will continue to choose us. To do this, we need to review the way we work from scratch to simplify, automate and streamline our current work, leading to further improved productivity. Many divisions are implementing their own projects, based on these ideas.



Divisions	Details of initiatives	Results
Information Technology Div., Miraca Holdings	<ul style="list-style-type: none"> Unify information systems such as group intranet Unify PCs and ICT devices; introduce remote working Unify IT support by establishing Miraca IT Support Desk 	Improved convenience and efficiency
Human Resources Div., Miraca Holdings	<ul style="list-style-type: none"> Hold workshops for all 650 general/senior managers 	Reduction in overtime hours
Accounting & Finance Div., Miraca Holdings	<ul style="list-style-type: none"> Improve and reduce inefficient work practices 	Improved efficiency by RPA*
Testing Div., SRL	<ul style="list-style-type: none"> Review work processes; free up time for training etc. 	Multi-skill development, improvement of testing quality
Production & Engineering Div., Fujirebio	<ul style="list-style-type: none"> Introduce information systems to visualize data, from production planning to manufacture 	Improved efficiency; reduction in working hours



Productivity and efficiency improvement project (June 2018)

* Robotic Process Automation: a technology allowing automation of indirect divisions

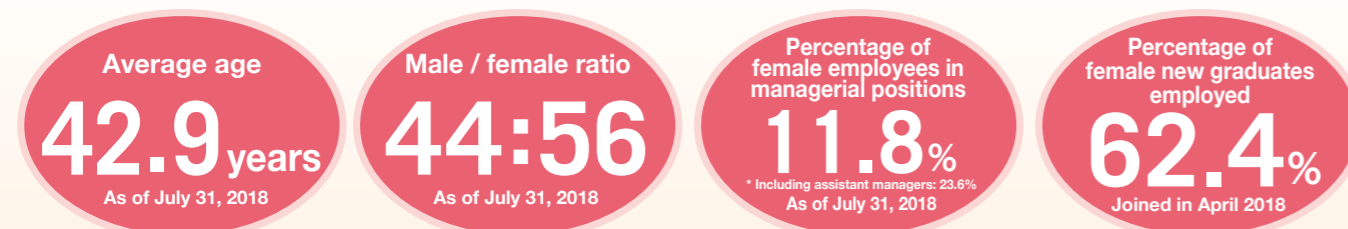
Human resources

Human rights and diversity

Aiming to create a company where every employee can fulfill their full potential, we strive to uphold human rights and respect the diverse individuality and values of each member of the workplace, promoting diversity and inclusion so that we can grow together.

Promoting diversity of human resources

We offer systems and create an environment that supports different ways of working to promote a good work-life balance and help working women. The Miraca Group is introducing a remote work system allowing employees to work anywhere at any time, and equipping work PCs and smartphones with systems enabling videoconferencing and external access to the intranet. The main purpose is to improve efficiency for those who work outside of office, but this is also useful for employees who have family care responsibilities, supporting different ways of working for different stages of life. One of the Miraca Group's Value is "Mutual Respect," and we strive to respect diverse values. As well as recruiting international employees as our management becomes more global, our existing employees have a wide age profile ranging from 19 to 67 years of age, and female recruits make up over 60% of new graduates recruited in recent years. We are trying to ensure diverse human resources regardless of nationality, gender or age.



Human resources

Employees development

With a clear image of talent we need to achieve our vision, we offer learning and training opportunities to encourage employees to further develop skills and performance, and create a proper evaluation system and a workplace where employees can demonstrate their abilities to the full.

Human resource development

The Human Resources Division of Miraca Holdings has been implementing the Miraca Talent Review every year since fiscal 2015. This is an annual process to ensure the right people are in the right jobs, focusing on the aptitude of each employee in and outside Japan. By identifying and nurturing talent and reviewing our human resources situation, this helps with individual career planning for each employee, ability assessments, and individual development. The Miraca Management Development Program, training for managers, is held every year, giving a deep understanding of the Miraca Group's Value to foster our corporate culture. We are working to nurture personnel who support the Group's corporate value by reinforcing evaluator training and personnel management. We are also trying to raise shared awareness in the Group by implementing joint training at various levels, such as training for new managers and training for new recruits.

Each group company also carries out its own specialist training. SRL opened a Training Center in 2017 and has established a system to provide training efficiently and effectively. Fujirebio has identified training of Diagnostics Medical Representatives (DMRs) as an important management issue. DMRs need a high degree of expertise, a broad perspective, and a flexible approach. We have therefore created a system of training and practice tests to help employees pass the DMR qualification exam, as well as staged training to improve their capabilities. We have also set up a system that give the opportunities for young employees in the sales department to experience work in other departments, such as marketing, production and development, encouraging them to find out things that cannot be learnt through training.

Fostering a CSR Mindset

In July 2017, we appointed CSR managers in all 31 departments of Miraca Holdings, SRL and Fujirebio to lead CSR activities based on the work of each department. The CSR managers work with the CSR Promotion Department to facilitate CSR training and two-way communication, rolling out CSR activities in each department with "full participation" as a key word.

To enhance two-way communication, we issue a CSR Newsletter and run an awards scheme to support the CSR activities in each company. The CSR Newsletter contains information to deepen understanding of CSR and the company's actions. The awards scheme recognizes examples of good practice in each of the four areas of CSR activities.

The Miraca Library Café is held every second month to present the knowledge and experience of the Group's employees outside of their main work, providing an opportunity for other employees to hear about these.

Training name	Attendees	No. of attendees	Date	Main purpose
CSR kickoff session	All Division Heads of the main 3 companies	25	Jul.	Sharing the Miraca Group's new CSR model's structure
CSR manager session	All CSR Divisional Representatives	30	Jul.	Workshop to identify CSR work and potential activities
CSR employee briefing	All employees of the main 3 companies	801	Aug.-Sep.	Sharing information about CSR/ the Miraca Group's initiatives
GRI briefing	All CSR Divisional Representatives	27	Dec.	GRI Standards, ESG evaluation etc.



CSR employee briefing (August 2017, Hachioji Office)

Working as a team to gain difficult qualifications

The clinical pathologist (grade 2) and cytotechnologist qualifications are among the most difficult certifications to obtain, so we have created a follow-up system for the team as a whole. In particular, for the cytotechnologist certification, we have made a multi-year plan and assigned a coach to help employees prepare for the exams at each stage. Going forward, we plan to create a training system tailored to each exam and a procedure that employees can follow towards gaining qualifications, leading to self-fulfillment.



Pathology & Cytology Department, Testing Division SRL, Inc.



Environment

Product life cycle assessment

To help achieve a low-carbon, recycling-orientated society, we focus on the life cycle of our products and services. The scope includes the research, development and design stages, as well as from marketing, purchasing, logistics, production/inspection and sales to disposal.

Product design with less waste

At Fujirebio, when producing reagents used in medical applications, we consider the environment from the design stage. Containers used for clinical testing cannot be reused due to the risk of infection. However, comments from customer satisfaction surveys show that there is increasing demand for environmentally conscious products, so we have added bottle reagents to our product range as a way of reducing the amount of waste.

Environmental design meeting global standards

As the Miraca Group expands globally, we are required to conform to environmental standards in each country. In Europe, where environmental initiatives are particularly advanced, the use of surfactants is banned under the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations, so we are conducting research and testing to make improvements to meet this standard. We also need to consider the material of the packaging and adhesives used during assembly, and we are putting a system in place for the supply chain as a whole, including our suppliers.

Product life cycle

Fujirebio

For our main product, the LUMIPULSE® clinical testing instrument, we take recycling into consideration in the whole process from production to use, reuse and disposal (recycling or landfill).



SRL

Some of the infectious waste from our Hachioji Laboratory is put into return pails. We collect them and perform sterilization and crushing process as shown below. The resulting plastic waste is collected by a contractor and turned into solid fuel (RPF) at an intermediate process facility.



Environment

Environmentally responsible operations

Based on international treaties, laws and regulations on environmental issues, we actively work on measures to mitigate and adapt climate change, recycling of waste and water resources, and prevention of environmental pollution in all our business operations.

Approach through our business operations

Together with Fujirebio and SRL, the Miraca Group is ISO14001:2015 certified, and we carry out environmental actions. We are working on reducing the environmental impact of our business as a whole, through work practice improvement including improved vehicle fuel efficiency, waste reduction and energy reduction in the production process.



Promotion of eco-friendly driving

At SRL, we are working to improve vehicle fuel efficiency. The logistics and sales divisions have a common goal of improving fuel efficiency by 1% each year. To raise awareness of eco-friendly driving, we participate in the "Eco-Drive Activity Competition" organized by the Foundation for Promoting Personal Mobility and Ecological Transportation. In the 2017 awards, SRL received a prize for excellence, and Fujirebio received a certificate for excellent activities. Going forward, the Miraca Group will work as a whole on these actions to raise environmental awareness.

Vehicle fuel efficiency improvement at SRL

	FY2015	FY2016	FY2017
Fuel efficiency	15.7	16.0	16.4
Year-on-year improvement	4.0%	1.9%	2.5%
Achievement	Yes	Yes	Yes

Approach to business activities, supply chain and life cycle

At the Miraca Group, we calculate our overall CO₂ emissions as a key indicator of our environmental actions. As well as the CO₂ generated by our business activities (Scope 1 and Scope 2), we include Scope 3 which refers to emissions generated in the supply chain (product purchasing, transportation, business travel, commuting, product sales, services, reporting, disposal etc.)

Scope 1/Scope 2		Calculation target	Units	Calculation data	FY2015	FY2016	FY2017		
(Business activities)	Scope 1	Company's own direct emissions of greenhouse gases	Amount used	Usage statement	9,453	9,141	8,477		
	Scope 2	Indirect emissions of greenhouse gases due to electricity supply	Amount used	Usage statement	23,464	22,217	21,275		
Scope 3 Emissions category		Calculation target	Units	Calculation data	FY2015	FY2016	FY2017		
Upstream	1	Purchased goods and services	Emissions from activities up to manufacturing of raw materials, parts, purchased goods, sales-related materials, etc.	Emissions unit value per purchase price	Purchase price	106,654	101,624	118,139	
	4	Transportation and delivery (upstream)	Emissions from distribution of raw materials, parts, purchased goods, sales-related materials, etc., up to delivery to the reporting company	Emissions unit value per purchase price	Purchase price	106,654	101,624	118,139	
	5	Waste generated in operations	Emissions from transportation and processing of waste generated by the reporting company	Emissions unit value per waste weight	Manifests etc.	3,255	3,519	3,435	
	6	Business travel	Emissions from business travel by employees	Emissions unit value per employee	Number of employees	747	740	784	
	7	Employee commuting (including commuting by car)	Emissions from transportation of employees when commuting to and from the place of business	Transportation cost	Amount	1,120	1,063	1,340	
	Downstream	9	Transportation and delivery (downstream)	Emissions from transport, storage, cargo handling, and retail sales of products	Truck transport emissions	Ton-kilometer	45,368	42,755	44,490
		11	Use of sold products	Emissions from use of products by users (consumers and companies)	Rated power operating time	Units	2,929	2,810	2,598
13		Leased assets (downstream)	Emissions from operation of assets leased to other entities	Rated power operating time	Units	5,565	4,317	5,306	
Scope 3 emissions total						272,290	258,451	294,232	
Scope 1+2+3 total						305,207	289,809	323,984	

* Refer to Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (Ministry of the Environment / Ministry of Economy, Trade and Industry). Units: t-CO₂.

CSR for Sustainable Growth

Main business operations and their effect on the environment

By using resources effectively, improving productivity and conserving energy, we are reducing our environmental impacts and emissions throughout our business operations. We manage our targets for environmental impact in terms of both input and output, from product manufacture to service, and strive for further improvement. By continuing to achieve these targets, we are aiming to create a recycling-based society.

Energy		Water	
Electricity	43,164,000 kWh	Water and sewerage	217,000 m ³
City gas	1,689,000 m ³	Other	
LPG (Propane gas)	1,231 kg	Chemical substances	
Gasoline	1,784 kL	Containers & packaging	
Kerosene	197 kL	Office supplies	
Fuel oil	14 kL		

Since it is difficult to calculate detailed figures due to differences in industries, these are not disclosed.

Main business processes of Fujirebio



Main business processes of SRL



Waste		Atmosphere	
General waste	264 t	CO ₂ emissions	29,752 t-CO ₂
Industrial waste	1,492 t	Water	
Special management industrial waste	781 t	Drainage amount	208,000 m ³

* FY2017 results

Local communities | Social health and well-being

As a healthcare-related group we strive to develop the activities towards creating a healthy and prosperous society. We support research by young researchers and collaboration projects between industry, government and academia, and offer platforms for discussion about health and medical care in society as a whole.

Selection of strategic philanthropic activities

From around 100 NPO projects based on ideas from our employees, we have selected around 40 projects to embody our strategic philanthropic activities. Some of these projects are introduced below, for each of the four CSR areas. Volunteers from the Miraca Group also helped in the aftermath of the torrential rain in western Japan in July 2018. We have set up a system for providing transportation expenses for voluntary activities, as we wanted to support individuals taking part in voluntary activities around Japan. For activities far away, transportation costs are partially subsidized for the accompanying family as well as the employee. Such initiatives enable two-way communication between NPOs and Group employees, creating opportunities for them to join diverse activities.

Examples of activities in the four action areas

Healthy and prosperous society

Support for patients with intractable children's diseases and their families

We are working with the Ronald McDonald House Charity Japan to support accommodation for the families of hospitalized children. We mainly provide cleaning service and donate supplies.



(RMH Setagaya, June 2018)

Human resources

Diversity Initiatives

Working with the Hand Stamp Art Project, we provide opportunities to learn about diversity, such as getting people with and without disabilities to create handprint art together. We also hold their booth at summer festivals.



(Hachioji Office, July 2018)



An artwork from this project appears on the cover of this report

Environment

Survey of Local Water Environments

Since SRL acquired ISO 14001 certification, we have been involved in the Survey of Local Water Environments in rivers neighboring our Hachioji Laboratory for over ten years. In fiscal 2018, we took part for the 14th time, with participants from the whole Group.



(Tamagawa River Basin, July 2018)

Local communities

Support programs for developing countries

We have introduced the TABLE FOR TWO program that tackles obesity in developed nations and hunger in developing countries at the staff cafeteria at our Hachioji Office. For each meal purchased from the Healthy Menu, a donation of 20 yen goes towards providing school meals for children in developing countries.



(Hachioji Office, June 2018)

CSR for Sustainable Growth

Charitable trust fund for future

For 30 years, SRL and Fujirebio have been running the Charitable Trust Laboratory Medicine Research Foundation of Japan, which supports young researchers and contributes to advances in medicine and medical technology. It aims to raise standards in the industry as a whole, with funding available to all hospitals and researchers.

The Koichiro Fujita Award and Nozomu Kosakai Award recognize people with long careers in the clinical testing industry.

These activities promote healthcare locally in Japan and support global health.



Awards ceremony (LEVEL XXI, Tokyo Kaikan, February 2017)

Award category	Year started	Number of winners	Amount awarded (yen)
Research subsidies	FY1981	299	219,800,000
Koichiro Fujita Award	FY2003	14	7,000,000
Nozomu Kosakai Award	FY1990	28	14,000,000

LUMIPULSE®1200 included in the History of Japanese Industrial Technology

The LUMIPULSE®1200 has been registered in the History of Japanese Industrial Technology database, a research project by the National Museum of Nature and Science.

As well as being Japan's first fully automated chemiluminescent enzyme immunoassay system, the LUMIPULSE®1200 was included because of its high speed and advanced technology.



LUMIPULSE®1200

Helping raise medical awareness in emerging nations

300,000 people a year are diagnosed with liver cancer in China. To contribute to early detection of liver cancer in China, Fujirebio gives seminars in hospitals and related conferences, introducing products and Japan's approach to diagnosis and screening for HBV and liver cancer.

The aim is to introduce the standard liver diagnosis widely used in clinical practices in Japan as a new solution in China. We are also approaching this by creating guidelines with the participating clinicians. As a new initiative from fiscal 2017, we are also taking a similar approach to lung cancer. Going forward, we will expand the target area, and help enhance local medical awareness by using the knowledge of the Miraca Group to the full.



Cooperation with marrow donor program and eye bank projects

As part of our efforts toward a healthy and prosperous society, making full use of the techniques and knowledge we have built up, we at SRL are cooperating with the marrow donor program and eye bank projects. Our specialized teams handle 700 cases per month and 50 cases per month respectively. This involves supplying blood collection equipment and returning data on HLA (human leukocyte antigen) testing and infectious disease testing.



Set of materials supplied for marrow donor program



Eye bank testing kit

Local communities

Partnership with diverse communities

To maintain valuable links with local communities and contribute to regional revitalization, as well as supporting festivals, sports and cultural exchange with local people in Japan and overseas, we actively support local voluntary activities by employees.

Working with local businesses

The Procurement Division of the Miraca Group considers and promotes doing business with local companies and is building links with companies in Hachioji City as an initiative to make profit in the local area and create employment. This also leads to decentralization of suppliers. In fiscal 2017 we started working with one local company. Going forward, we will strengthen our ties with local businesses who will become our partners.



Providing products and services that meet expectations

With support from Hachioji City, we have been contracted to produce products for SRL, the first time a local company has been selected as part of the supply chain. By providing a stable supply of high-quality products and making efforts to solve various issues, we are committed to fulfilling our social responsibility as a partner in the clinical testing business for a prosperous local community.

President of plastic molding manufacturer in Hachioji City

The Miraca Group Summer Festival

The Miraca Group Summer Festival is an annual event that has been held since 1981 by the Miraca Group.

Currently, around 2,000 to 3,000 people come to the event each year, and it is well known in the local area. From fiscal 2017, we have held a PR/CSR booth at the festival to deepen understanding of the Miraca Group CSR activities. The booth introduces projects like the Know About Hepatitis Project and the Hand Stamp Art Project as part of our CSR activities, creating an opportunity for people to find out more about the Miraca Group.



The Miraca Group Summer Festival (Hachioji Office, July 2018)



Picture Book Project

SRL's Sales Division is taking the lead in promoting the Picture Book Project for children fighting illness. This project, donating picture books to local hospitals, ran from August 2016 to June 2017 and from November to December 2017. Items including 476 picture books collected by employees have been presented to around 30 medical institutions. In future, we intend to expand the scope of the project by donating a wider range of items.



Donation by the Picture Book Project (Tokyo Rinkai Hospital, July 2018)

Business foundations

Strong corporate governance

To enhance mid- to long-term corporate value and prevent reputational damage while helping create a sustainable society, the Miraca Group strengthens cooperation among various stakeholders and strives for proper decision-making, sound management and greater accountability.

Basic approach

With a mission to create new value in healthcare and contribute to the prosperity of people, the Miraca Group is working for more effective management based on our Vision and Value. Fully aware that corporate activities are based on cooperation and harmony among many stakeholders, we are committed to establishing

corporate governance practices that lead to greater managerial transparency and prompt and proper decision-making.

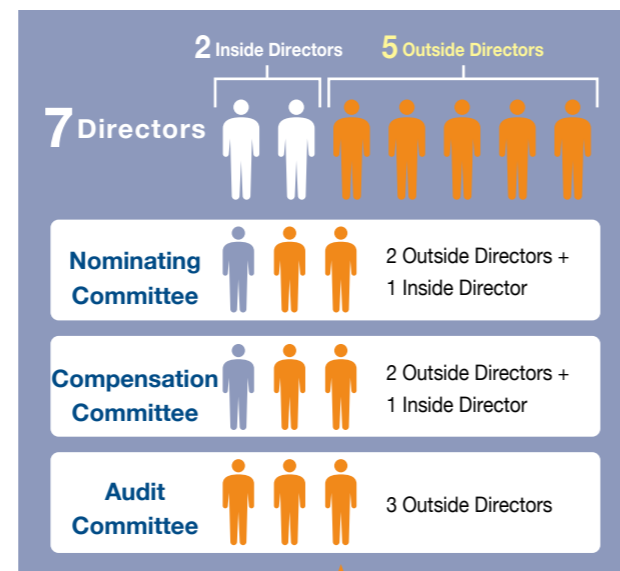
● The Corporate Governance Policy is published on the company website. https://www.miraca.com/resources/file/pdf/en/20170623_CG_policy_E.pdf

Corporate governance

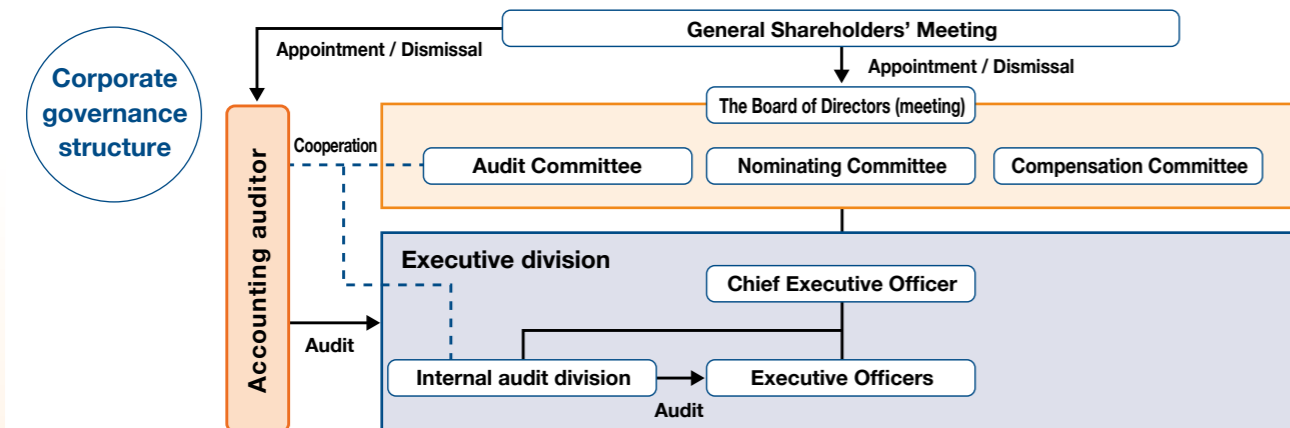
The Group management knows the importance of a strong, thorough corporate governance, and is committed to creating a governance structure that encourages greater managerial transparency and prompt and proper decision-making. To achieve clear separation of oversight and executive functions, give executive officers the authority to make decisions quickly and provide better management of Group companies, the “company with three committees” structure was adopted in June 27, 2005 and group control was transferred to a pure holding company in July 1, 2005.

The Board of Directors receives reports from each committee and from executive officers on current corporate operations and performance targets, so that the board can provide timely corporate oversight. Of the seven board directors,* five are outside directors appointed as leaders in their respective fields.

*According to Article 18 of the Articles of Incorporation of Miraca Holdings Inc., the Company shall have no more than ten directors.



Outside directors are appointed to chair each committee



Efforts to strengthen corporate governance

Making proper decisions promptly and with transparency is essential for sound business management. To achieve our mid-term plan, the Miraca Group must also have a sense of urgency and unite. To realize these, we standardized approval rules within the Group to pursue stronger group management. Actively promoting global expansion in In Vitro Diagnostics, we established Fujirebio Holdings to oversee the whole business, accelerate global management and strengthen governance.

We also set the framework for sharing information with overseas subsidiaries by translating the Group's management philosophy, brand message and corporate governance policy into English. Going forward, we will continue to build a much stronger governance system globally.

Compliance with Japan's Corporate Governance Code

The Miraca Group agrees with the intent of the Corporate Governance Code set by the Tokyo Stock Exchange and complies with all its principles. We will submit a report based on the revised Corporate Governance Code dated June 1, 2018 by the end of December 2018.

● The Corporate Governance Code is published on the company website. https://www.miraca.com/resources/file/pdf/20180627_governance.pdf (Japanese)

Internal control system

As maintaining good governance is important, we will continue to develop our practices and establish the basic policy for an internal control system, strengthen the Audit Committee's auditing system, promote management rules to all group companies, and create a system to ensure proper business practices.

Management compensation

With top priority on enhancing corporate value and the common interests of shareholders, a performance-based compensation plan for executive officers was adopted while the retirement bonus, which is not closely linked to performance, was abolished, and a stock compensation plan was introduced to share the interests of shareholders, management and other employees.

Reason for appointment and committee affiliation of directors

	Nominating Committee	Compensation Committee	Audit Committee	Reason for appointment
Shigekazu Takeuchi	○	○		Involved in the management of entertainment companies over many years. His wealth of experience and knowledge amassed from these stints are valuable to Miraca Holdings. Suitable as director of the company
Naoki Kitamura				Joined as Strategic Planning Department General Manager in 2011 and appointed Executive Officer from 2013. Involved in finance, corporate planning and corporate strategy over the years, with extensive knowledge and experience from a global perspective. Suitable as director
Shigehiro Aoyama (Outside Director)	○			Involved in the management of Suntory Holdings Limited over many years. Provides valuable advice based on his wide-ranging experience and knowledge in corporate management. Suitable as outside director of the company
Futomichi Amano (Outside Director)			○	Involved in audit and management of Deloitte Touche Tohmatsu LLC for many years as a certified public accountant. Lends his abundant knowledge and expertise to the management of the company. Suitable as outside director of the company
Miyuki Ishiguro (Outside Director)		○	○	Partner in the law firm Nagashima Ohno & Tsunematsu. Provides expert counsel to company management as a highly experienced lawyer on corporate legal affairs. Suitable as outside director of the company
Ryoji Itoh (Outside Director)	○	○		Professor teaching media and governance at graduate school, management consultant and head of company. Lends his expert knowledge gained from his wealth of experience to the management of the company. Suitable as outside director
Susumu Yamauchi (Outside Director)			○	Professor who taught history of the Western legal system. Imparts his extensive experience and insights as former President of Hitotsubashi University to company management. Suitable as outside director

Business foundations | Compliance

Along with developing and enforcing a compliance system, all officers and employees strive to comply with laws, enhance awareness of global codes of conduct and ensure transparency in relationships with medical providers and institutions.

Basic approach

Being involved in healthcare, the Miraca Group considers thorough compliance as vital to corporate survival. In 2013, the Miraca Group Code of Conduct was formulated to provide basic guidelines. It sets the standard for all decisions on business and other corporate activities for all officers and employees working in the Group. English and Chinese language editions are also available for overseas subsidiaries. Further, Miraca Holdings set up Code of Conduct Committees at each group company to investigate facts when compliance-related issues arise and create the system to properly address the situation. Also, the Legal Affairs Division include members with required knowledge and experience, including qualified lawyers and patent attorneys, to provide a system for dealing with complex laws and intellectual property issues.

Whistleblower system

The Miraca Group Hotline is provided for subsidiaries in Japan and receives information, anonymous or not, on legal, company rule or code violations. Outside counselors are available online or over the phone. Serious matters are reported to management as necessary. Hotline contact cards are distributed to disseminate the whistleblower system to employees.



Compliance training

The Miraca Group issued the Compliance Handbook in 2016, which contains easily understandable information on compliance in Q&A format. Reading sessions are held at each department to raise employee awareness. We plan to update the handbook in fiscal 2018 to reflect the latest trends and social needs, as well as incorporate compliance topics in various trainings, including harassment training, to build awareness across the entire Group.



Intellectual property activities

The Miraca Group actively acquires intellectual property rights worldwide, such as patents and trademarks, to protect Group products and services. We are committed to providing incentives to inventors through fair and transparent incentive schemes. To avoid intellectual property rights infringement, we employ third-party patent searches during the R&D process and conduct intellectual property training for research department employees.

Anti-corruption efforts

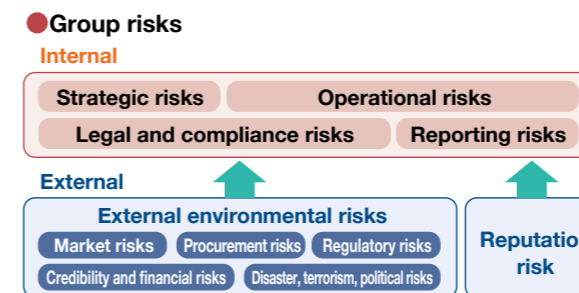
As the Miraca Group encourages collaboration with medical and research institutions to improve healthcare and clinical testing techniques, we strive to build trust and transparency by acting with high ethical standards. We actively work to ensure transparency by following the Promotion Code for promotional activities.

Business foundations | Risk management

We aim to build an extensive risk management system by identifying, assessing, reducing, avoiding and monitoring management risks, including strategic risks, to prevent reputational damage to corporate value and take preventive measures with swift and appropriate response to incidents.

Basic approach

The Miraca Group set up the Risk Management Committee to perceive and manage the various risks involved in business activities and promote risk management. Every year, Miraca Holdings and its operating companies assess the possible risks that may affect management according to a common group standard, and then identify the critical risks to formulate a contingency plan and engage in risk reduction activities.



BCP efforts

The Miraca Group conducts business with around 80% of major hospitals in Japan. Service disruptions due to large-scale disasters and such can wreak havoc on the entire healthcare system in Japan. Our mission is to prevent operation downtime even in disasters and other emergencies. The current business continuity plan (BCP) in operation was formulated by each operating company in 2011. We are now restructuring the BCP as a Group to consider the recent frequency of natural disasters. To ensure service during emergencies, the new plan will consider outcomes of events and will include actual training and exercises along with the rules. The new central laboratory under construction was also designed for business continuity in the event of disasters with the use of facilities and equipment that minimize their impact.

Business foundations | Information security and privacy protection

We are committed to strengthening security against leaks by providing a better IT security system and group-wide employee education to safeguard the personal data of patients, customers, business partners and employees obtained and stored in the course of business.

Strengthening information security

Since the Miraca Group keeps huge amounts of specimens and personal information mainly from medical institutions, we consider security and creating a system to comply with the Personal Information Protection Act of Japan as a major management issue. SRL obtained the PrivacyMark certification¹ in February 2005, as well as the ISMS and ISO/IEC27001² for information system security in some areas of the Hachioji Office. Through these certifications, we have built a management system against information leaks.



¹ Certification for the entire company

² Certification for the SRL Hachioji Office (part of Hino Administration Building and Information & Distribution Center)

Creating a secure environment

The remote work program developed as part of work style reforms, while convenient, increases the risk of leaks. To address this, the IT Division of Miraca Holdings is developing a system to create a safer environment through data encryption, remote account locking, among others. Group companies also conduct company-wide training every year to enhance employee IT literacy via e-learning.

E-learning contents (partial)

- Handling smartphones
- Managing passwords
- Clean desk policy



Messages from Representatives of Miraca Group Companies

Fujirebio Inc.

Goki Ishikawa, President & CEO

Since developing the syphilis HA antigen testing in 1966, Fujirebio has successfully produced reagents for infectious diseases and many other fields. We contribute to society by creating new value, always aiming to develop reagents that are "Number One" and "Only One" in the world.



Advanced Life Science Institute, Inc. (ALSI)

Katsumi Aoyagi, President & CEO

ALSI is a small company with fewer than 20 employees, but we have contributed to global healthcare by creating new value including the ProGRP diagnostic marker for small cell lung cancer, HCV core antigen, HBcrAg measuring reagent, and the world's most sensitive HBs-HQ. Creating new value is ALSI's responsibility, and we will continue contributing to society by developing innovative reagents.



Japan Clinical Laboratories, Inc.

Takashi Arai, President & CEO

I experienced 2011 Great East Japan Earthquake and tsunami in Tohoku, and the recent earthquake in Northern Osaka. Having received support on these occasions, We will leverage CSR to fulfill our responsibility to society, not just as a tool for PR exercise. We will be a part of the Miraca Group's CSR activities, focusing on working in unity and contributing to society with speed.



Hokushin Clinical Laboratory, Inc.

Yoshifumi Mitsui, President & CEO

As a member of the Miraca Group, at the same time as ensuring compliance and reducing risk, we will fulfill our role as a company, striving for management integrity and transparency. We will respond to changes in society and our customers' needs to maximize customer satisfaction and corporate value, aiming to work in harmony with the local community.



Fujirebio Europe N. V. (FRE)

Christiaan De Wilde, Chief Executive Officer

Being so fortunate to live our life in good health, peace and prosperity, we must give back towards communities. We must foster our environment and natural resources. Through our IVD business and with "care for our employees" as one of FRE's values, we demonstrate to take our corporate social responsibility seriously. I am convinced heartwarming CSR initiatives of our employees will further expand!



Fujirebio Diagnostics, Inc.

Monte Wiltse, President and Chief Executive Officer

Fujirebio Diagnostics has played a significant role in advancing cancer management for over 30 years. Based on our history in oncology, our CSR program is designed to have a positive impact on patients with cancer. By having first-hand knowledge of the challenges of cancer patients, our employees will bring a deeper understanding and a renewed commitment to their work.



Fujirebio Taiwan, Inc.

Takeshi Fujita, Chairperson,

Fujirebio Taiwan collaborates with hospital laboratories and private laboratories, mainly in infectious disease and tumor markers. Also we contribute to Taiwan's blood donation program by providing SERODIA®-TPPA to blood donation centers. Going forward, we will help improve healthcare in Taiwan by supplying Fujirebio Group's wide-ranging and high-quality products.



Fujirebio Asia Pacific Pte. Ltd.

Masaaki Iseki, Managing Director

Singapore is very concerned to create a sustainable future. The government has established a dedicated team to provide and support social enterprises. The country is currently facing an aging population. A key social issue is to extend healthy life expectancy. Through our business, Fujirebio can contribute to the society in many ways — both directly and indirectly!



Fujirebio India Private Limited

Nobuhiro Yamamoto, Managing Director

India has hospital laboratories and private laboratories of various scales and levels, with diverse customer needs. As well as infectious diseases, there are huge numbers of patients with conditions including cancer and heart disease. We will work to help improve healthcare in India by supplying Fujirebio Group's wide-ranging and high-quality products.



Miraca Research Institute G.K.

Kazuya Omi, Executive Officer

Miraca Research Institute was established in July 2017 as a base for the Miraca Group's fundamental research and open innovation. Through challenging research in the fields of healthcare and health science, new business development and human resource development, we will work to maximize the Group's corporate value, and solve complex social issues worldwide.



Care'x, Inc.

Hidetoshi Mitsui, President & CEO

We want to provide top quality and safety to users in the care equipment rental business. Our wish to help to improve quality of life for elderly people by supplying appropriate care equipment is why we insist on high quality. We will work with our stakeholders to solve any issues and work towards developing a high-quality care equipment rental business.



SRL Medisearch Inc.

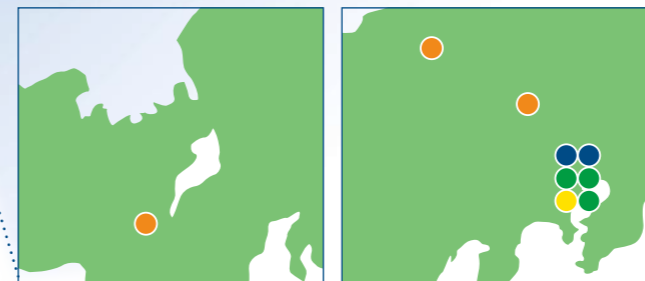
Masahiro Ikeoka, President & CEO

Our role is to provide speedy and high-quality test data for clinical trials and clinical research at the upstream end of healthcare. Through our work, we will continue to enhance corporate value by support to pharmaceutical R&D with high treatment satisfaction and bringing new treatments to patients quickly, helping to solve social issues.



The Miraca Group operates globally for people and healthcare.

- Clinical Laboratory Testing
- In Vitro Diagnostics
- Healthcare Related
- Research Division



Third-Party Opinion



Kazutaka Okubo

Senior Executive Board Member
Ernst & Young ShinNihon LLC

With the explosive global population growth and widening wealth disparity, inequality has spread to healthcare as well. Various healthcare issues are cropping up worldwide — many people do not receive even basic medical care and infectious diseases are spreading. For healthcare companies, the prospects for solving these challenges are vast.

Clinical testing makes proper treatment possible and promotes preventive medicine, while also reining in the government's soaring healthcare costs. The Miraca Group's business itself is not just socially important, but the expectations for the Group are high.

To raise corporate value through CSR activities, the Group must take the lead in addressing the more challenging healthcare issues. I expect that the Group will not limit itself to conducting its core businesses but also make good use of their knowledge and technologies on long-term initiatives from the macro perspective. I commend the Group's consistent efforts to raise corporate value through CSR activities — to achieve their Vision by conducting Value-based materiality assessment and incorporating the most important material issues into mid- to long-term corporate strategies. In particular, I look forward to their efforts to address cancer genomic testing, dementia screening and infectious diseases, and to identify pathologies of intractable diseases by esoteric testing.

Going forward, all employees must work together on these CSR activities as a way of practicing the Group's Value. Although most of the Group's clients are medical institutions, the final users of its products and services are patients and local communities; thus, the CSR activities must consider these final users as stakeholders as well. Aside from giving support as a Group, creating an environment where employees can take the initiative to contribute to tackling difficult issues for the government alone, such as support for patients with intractable children's diseases, cancer and intractable/rare diseases, helps employees reaffirm the Group's social importance and leads to more Group-wide efforts to develop cutting-edge technologies, provide better patient services and address other social healthcare issues. To create more value with such activities, I hope to see more in-depth initiatives where the social issues are specified more clearly along with the Group's potential contribution, and where the social impact of such initiatives are visualized and numerical targets are set.

To link CSR activities to value creation and enhance corporate value further, the key is steady, consistent, Value-based efforts by all employees to address social issues as part of implementing the Group Vision based on its Mission. I look forward to the Miraca Group's CSR activities that upend the usual approach from "What can Miraca give to society?" to "How can Miraca help to meet society's needs?"

Response to third-party opinion

I sincerely thank Mr. Kazutaka Okubo for his support and for giving us his very insightful opinion as a third party on this very first issue of our CSR Report as a Group, in keeping with the CSR industry standards set by leading global corporations. Knowing that our consistent efforts to raise corporate value through CSR activities are in the right direction is a great encouragement for us to continue with our work in the healthcare industry.

We understand that the feedback for going forward is full of helpful and meaningful suggestions in our aim to become a corporate group with forward-looking CSR activities in the near future. To address global issues such as those in the SDGs, and the issues of stakeholders, not only our medical institution clients but also patients, their families and local communities, we will set definite numerical targets and actively engage in CSR activities worthy of a leader in the clinical diagnostics industry.

With this feedback, we at the Miraca Group resolve to re-commit to our CSR activities.



Shigeto Ohtsuki

Executive Officer,
Human Resources and CSR
Miraca Holdings Inc.

Corporate Profile

Corporate name	Miraca Holdings Inc.
Headquarters	Shinjuku Mitsui Building, 2-1-1 Nishishinjuku, Shinjuku-ku, Tokyo 163-0408 TEL: +81-3-5909-3335
Director, President & Group CEO	Shigekazu Takeuchi
Foundation	December 18, 1950 (Corporate name change and transition to a holding company structure through a corporate split transaction on July 1, 2005)
Capital stock	9,066 million yen (as of March 31, 2018)
Number of employees* (as of March 31, 2018)	SRL: 2,741 (3,173) Fujirebio: 1,059 (129) Miraca Holdings: 324 (18) Consolidated: 5,541 (6,600)
Corporate structure	Company with a committee-based governance system
Major subsidiaries	SRL, Inc. / Fujirebio Inc.

*Indicates numbers for regular and temporary employees, with numbers in parenthesis indicating average number of temporary employees in a year



Headquarters lobby refurbished in 2018

(as of June 22, 2018)

Directors & Officers

Directors	Shigekazu Takeuchi Naoki Kitamura
Outside Directors	Shigehiro Aoyama Futomichi Amano Miyuki Ishiguro Ryoji Itoh Susumu Yamauchi
Director, President & Group CEO	Shigekazu Takeuchi
Executive Officers	Yoshihiro Ashihara Shunichi Higashi Naoki Kitamura Shigeto Ohtsuki Hiroaki Kimura Kazuyuki Hanyu Tadashi Hasegawa

External Recognition of Our ESG Performance

The Miraca Group is included in the MSCI ESG Leaders Indexes, consisting of companies with high environmental, social and governance (ESG) performance, selected by Morgan Stanley Capital Investment (MSCI) in the United States.

MSCI Japan ESG Select Leaders Index rating: A



Miraca Holdings Inc.

Shinjuku Mitsui Building, 2-1-1 Nishishinjuku,
Shinjuku-ku, Tokyo 163-0408

Contact : CSR Promotion Department

e-mail: csr_toiawase@miraca.com

URL: <https://www.miraca.com/en/csr/>



Provided by the Hand Stamp Art Project

This project draws the largest picture in the world made with the hand and foot prints of children with illnesses and disabilities and the people who support them. Its aim is to hold up this culmination of their work as a symbol of the participants' dreams at the 2020 Tokyo Paralympic Games.