



Innovation all for the patients

CHUGAI PHARMACEUTICAL CO., LTD.

Annual Report 2017 Supplement

Our Essence

Who we are, What we do



All over the world, people are awaiting new and innovative medicines. We want to give hope to patients and their families, and to make ongoing contributions to health and medical care. Hence Chugai's mission: To dedicate itself to adding exceptional value through the creation of innovative medical products and services for the benefit of the medical community and human health around the world.

The more than 200 types of cells that make up the human body are the reason people exist.



Each and every plant in nature also has a reason for existence.

Creating truly groundbreaking drugs is like venturing into an unknown world. We must challenge conventional thinking and depart from past practices to confront difficulties head-on. It isn't easy, but in order to contribute to patients, we ourselves must constantly change. "Innovation all for the patients": This business philosophy is Chugai's lifeblood, and drives our value creation.

Ways We Seek to Provide Value for Patients

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We want to help patients and their families lead fuller lives. One by one, we are reducing the number of things they have to give up due to their illness or treatment.



Our mission is to create and deliver effective medicines. We coordinate our individual and organizational strengths to expedite the progress of creation and bring new medicines to patients as quickly as possible.



Illnesses that appear to be the same may differ in type or cause. If treatments can be tailored to patients for better efficacy and fewer side effects, the value of medicines can be extended further.



For some diseases, treatment used to be aimed at slowing progression, but now the goal is to cure the disease. Even treatment paradigms can be changed.



Patients around the world are waiting anxiously for new treatments. While systems and regulations differ in each country, medicines are only valuable if they reach the patients who need them.



The medical community constantly strives for safer, higher-quality care. If we can supply healthcare providers with a wider range of data beyond drug information, we can help to increase treatment options.



People often have a disease without realizing it. Early testing and referral to the appropriate medical facilities will lead to better treatment.



All medicines have a risk of side effects. If those side effects can be managed, patients need not discontinue treatments that are most effective.



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Chugai in Action

Reference Page in Annual Report 2017

-  Creating Innovative Drugs That Address Unmet Medical Need → 34
-  Quickly Bringing New Treatment Options to Patients → 37
-  Providing Solutions for Better Healthcare → 40
-  Environment, Health and Safety Management throughout the Value Chain → 43
-  Developing Talent That Generates Innovation → 46
-  Corporate Governance to Put Our Corporate Philosophy into Practice → 50

For further information, see Annual Report 2017.

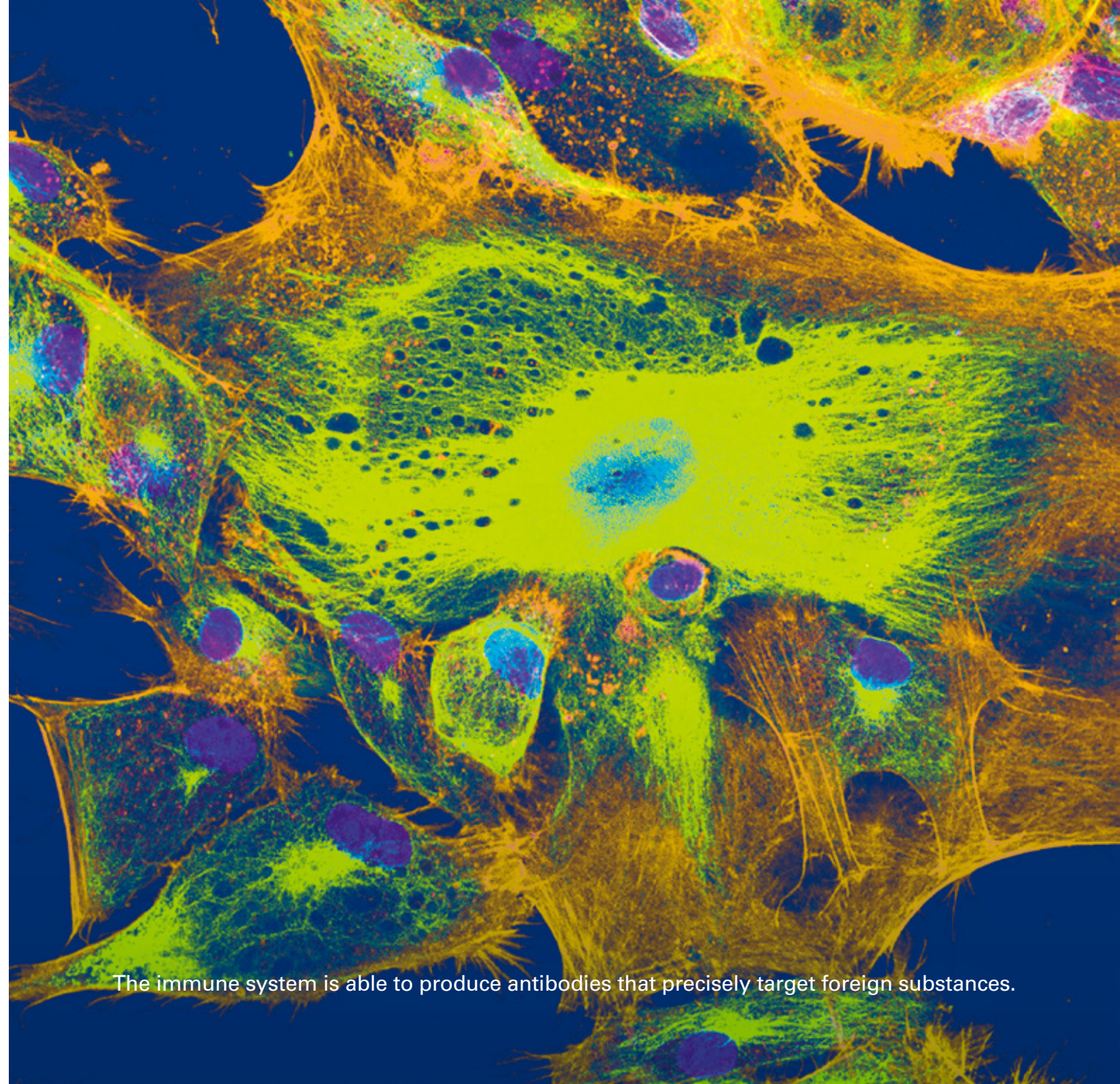
Through innovation, we work for the benefit of the medical community and human health around the world. To support that mission, in 2009 we set the fundamental goal of becoming a top pharmaceutical company – in other words, a company that is trusted by and satisfies all stakeholders, that lives up to their expectations, and that has a solid position and presence in Japan and overseas. To achieve this corporate vision, we have focused our efforts on innovative drug discovery and provision of solutions. As a result, our goal is now within reach.

**Definition of a
“Top Pharmaceutical Company”**

(The company Chugai aims to become by the late 2010s)

A company that focuses on first-in-class¹ and best-in-class² products and services, and continuously provides new solutions to patients and medical communities around the world

1. An original drug that is highly novel and useful, and will significantly change the therapeutic system
2. A drug that offers clear advantages over other existing drugs in the same category, such as those with the same molecular target



The immune system is able to produce antibodies that precisely target foreign substances.



Much in the same way, a company grows by solving various problems.

Our belief in solving issues that affect patients and medical care goes all the way back to 1925, when the Company was founded in response to a post-earthquake medicine shortage. Over the course of our history of more than 90 years, management has made several significant transformations, most notably the strategic alliance with Roche in 2002. The alliance was met with surprise and skepticism both inside and outside the Company, but 15 years have passed since its inception. We have built an unprecedented business model, and our market capitalization has grown by approximately nine times.*

* As of December 31, 2017

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The History of Chugai

1920s-1950s



Founded in response to a post-earthquake medicine shortage, and rebuilt following a war

In 1925, concerned by the acute shortage of medicines following the Great Kanto Earthquake, Chugai's founder Juzo Ueno established Chugai Shinyaku Shokai, Chugai's predecessor. Later, the Company rebuilt in the aftermath of the Second World War. Although it faced hurdles including a steep drop in demand for its mainstay products, Chugai broadened its value in ways such as bringing its global product Guronsan to patients in 31 countries.

1960s-1970s



Restructured to specialize in prescription pharmaceuticals

Rapid change in the over-the-counter (OTC) drug market weakened Chugai's performance, so the Company restructured, shifting its business focus from OTC to prescription drugs, leading to a successful recovery. Meanwhile, Nippon Roche moved to reinforce its business foundation in the 1960s, and created a major product in the oncology field. It was the first foreign-affiliated pharmaceutical company to establish full-scale laboratories and manufacturing plants in Japan.

1980s-1990s



Made large-scale investments in discovery and production of biopharmaceuticals, followed by successful formulation and launch

Chugai decided that establishing biotechnology was essential to its future, and began investing resources in research and development of biopharmaceuticals in the 1980s. The Company also worked to establish technology for the mass production of biopharmaceuticals, and in the early 1990s it launched a biopharmaceutical product created through genetic engineering, laying the foundation for what would become one of its core strengths.

Significance of the Strategic Alliance with Roche

For Roche

- A local operating base attuned to Japan's business environment
- Expanded opportunities to obtain groundbreaking drugs from Japan
- A stronger presence in Japan, one of the world's largest markets
- Creation of a global hub-and-spoke organizational structure

For Chugai

- Establishment of drug discovery technology infrastructure for biopharmaceuticals, therapeutic antibodies, small molecule drugs and others
- Increased opportunities to create groundbreaking drugs using R&D synergy
- Stronger operating resources, including products and development projects
- Option to use the Roche Group's infrastructure to access the global market

2000-2004



Entered a strategic alliance with Roche and created a unique business model

Chugai's strategic alliance with Roche, one of the world's leading pharmaceutical companies, started in 2002. With this alliance, Chugai made a fresh start and created a unique business model in which each company benefited from the other's strengths. Later, as the number of projects in-licensed from Roche increased, Chugai reorganized its research centers and manufacturing plants and transformed its earnings structure.

2005-2009



Launched the first therapeutic antibody created in Japan and set the goal of "top pharmaceutical company" to achieve greater innovation

Building on its experience in manufacturing biopharmaceuticals since the 1980s, Chugai launched Actemra, the first therapeutic antibody created in Japan, in 2005. Chugai also captured the top domestic market share in the field of oncology with a powerful product lineup. In 2009, to achieve even greater innovation, Chugai set the goal of becoming a "top pharmaceutical company" by the late 2010s.

2010s



Innovating further as previous innovations yield results

In 2013, Chugai launched mid-term business plan ACCEL 15. In addition to steadily generating innovative medicines and leading the world with its antibody engineering technologies, Chugai has become an industry leader in areas such as promoting personalized healthcare and initiatives to improve drug safety. In 2016 Chugai started IBI 18, a business plan that will significantly advance its transformation into a top pharmaceutical company.

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Achievements in the 15 Years of the Alliance

Revenues

Tripled

While we obtained a stable revenue base in Japan by marketing products from Roche's rich pipeline, we also established a revenue base that drives growth by gaining access to global markets for products from Chugai's research.

Operating Profit

Tripled

As revenues expanded, the ratio of cost of sales to sales increased with in-licensing of Roche products. Nevertheless, we have achieved a high ratio of operating profit to revenues in ways such as efficient management of operating expenses and R&D expenditures.

Breakthrough Therapy Designations

5

Using its proprietary antibody technologies as well as Roche's research infrastructure, Chugai has achieved a world-class level in drug discovery, including small molecule drugs. Chugai-discovered drugs have received five breakthrough therapy designations from the U.S. Food and Drug Administration (FDA).

Number of Products Launched in Japan

17

Amid intense competition in drug development, Chugai has built a rich pipeline by developing products from its own research in addition to in-licensing from Roche. Chugai continues to rapidly launch innovative products by implementing a revolutionary development model.

We have generated innovation in these ways up to now. As we move forward, however, our operating environment will present even tougher challenges and more uncertainty. We must continue to evolve in order to contribute further to patients, and must demonstrate value globally to ensure our survival. Under our mid-term business plan IBI 18, we will gain and leverage competitiveness at a top global level as we pursue innovation.



INNOVATION
BEYOND IMAGINATION

In IBI 18, we are working to create value for patients around the world by further developing our strengths and tirelessly pursuing innovation to become a top pharmaceutical company.

Our blood never stops circulating as long as we are alive.



Likewise, constant progress is what allows humans to grow.

We have many products, technologies and functions that are among the best in the industry, and by analyzing and evaluating them, we identified the “seven strengths” that form our unique advantage. Refining and evolving these strengths is the very source of our innovation. Through innovation for patients, Chugai will continue to increase its corporate value.

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Chugai's Seven Strengths



Chugai focuses on discovery and development of products that can provide new value, such as drugs that apply its proprietary antibody technologies. We will continue to create products that address areas of high unmet medical need, in addition to the disease areas of our core products.



We are evolving our unique business model in which products in-licensed from Roche provide a stable revenue base that allows us to concentrate investment on highly innovative proprietary technologies and drug discovery. Meanwhile, we are promoting our win-win relationship under which Roche can market the innovative products from Chugai's research in global markets.



Cutting-edge drug discovery technologies, especially biotechnology



Safety information is still not being fully utilized in Japan in clinical settings. We will contribute to improving the level of drug safety in Japan through innovative initiatives such as the adverse drug reaction database we have built as well as by collaborating with pharmacists and focusing on epidemiological studies.

2

One of the richest pipelines in Japan

To increase its development speed globally, Chugai is taking steps to obtain early proof of concept (PoC)¹ and establish a production system that facilitates faster market launches. By understanding unmet medical need from a global perspective and reflecting it in development plans, we will maximize the value of our pipeline.

1. PoC is confirmation that the therapeutic effect conceived in the research stage is effective in humans. Early PoC means that in addition to safety, signs of efficacy or pharmacological effect have been confirmed in a limited number of cases.

In addition to accelerating drug discovery using its proprietary antibody technologies, Chugai is working to establish middle molecule discovery technologies as candidates for its next-generation core technology. Based on comprehensive collaboration with IFRc,² we will also contribute to society through further advancement of immunology research and the creation of innovative medicines.

2. Osaka University Immunology Frontier Research Center

5

Knowledge and experience as a pioneer in personalized healthcare (PHC)

Under a cooperative arrangement, Chugai actively collaborates from the early stages of research and development with the Roche Group, a world leader in diagnostics. With our work on biomarker discovery and research on disease and pathophysiology, we will also contribute further to expand the use of PHC.

7

Support for healthcare delivery

Chugai is creating a new system for providing solutions that can be precisely adapted for diverse needs in different regions. In addition to our highly specialized medical representatives (MRs), we are also developing people who can provide information from a broader, more comprehensive perspective covering all disease areas.

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Chugai in 2017

No. 1

Chugai has a 20.2 percent¹ market share in the oncology field in Japan, and has maintained the number-one share for 10 years. We also have market-leading product lineups in the fields of bone and joint diseases and renal diseases.

1. Copyright © 2018 IQVIA.
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The scope of the market is defined by Chugai.

No. 1

Chugai also holds the number-one market share¹ in Japan for therapeutic antibodies for diseases with high unmet medical need. In addition to products in-licensed from Roche, key products include Actemra, which emerged from Chugai's biopharmaceutical research and is the first antibody created in Japan.

74%

The proportion of Chugai's sales from products that qualify for premium pricing has exceeded 70 percent since 2013, and remained at a high level in 2017. We will continue to focus on creating innovative medicines to provide new value for patients.

Note: Avastin, which was subject to special market-expansion repricing, is counted as a product qualifying for premium pricing because it was assumed to meet the conditions for such pricing in 2017.

12.5%

The percentage of female managers (non-consolidated) at Chugai is rising each year, and has increased to 12.5 percent from 8.3 percent in 2012. Our goal is to raise this figure to 13 percent in 2018, and we plan to further accelerate our initiatives to develop female leaders.

More than 50%

The majority of projects in Chugai's pipeline are based on PHC, which tailors treatment to individual patients. We also focus on the simultaneous development and approval of drugs and companion diagnostics to promote PHC.

¥103.2 billion

Sales and profits have been driven by the global growth of products from Chugai research, including Actemra and Alecensa, which have become core products of the Roche Group. Operating profit (Core basis²) reached a record high in the 15th year of the strategic alliance.

2. Core basis results are the results after adjusting non-Core items to IFRS basis results.

Products

Anaplastic lymphoma kinase (ALK) inhibitor Alecensa obtained approval for the treatment of ALK-positive non-small cell lung cancer
Europe: second-line (February), first-line (December)
U.S.: first-line (November)

Humanized anti-human interleukin-6 (IL-6) receptor monoclonal antibody Actemra obtained approval for the treatment of giant-cell arteritis and Takayasu arteritis
U.S. (May), Japan (August), Europe (September)

Photodynamic diagnostic agent Alaglo obtained approval for transurethral resection of the bladder tumor (TURBT) (September) and was launched (December)

Initiatives to Strengthen the Business Foundation

Started operation of collaborative lab with IFRc (April)

Established a sales organization based on our area promotion strategy (April)

Signed an agreement to transfer marketing and manufacturing rights of long-term listed products to Taiyo Pharma Co., Ltd. (November)

Development Projects

Filed for approval of immune checkpoint inhibitor Tecentriq for the treatment of non-small cell lung cancer (February)

Filed for and obtained approval of Hemlibra for the treatment of hemophilia A with inhibitors
Filed in U.S. and Europe (June) and Japan (July)
Obtained approval in U.S. (November)

Filed for approval of glycoengineered type II anti-CD20 monoclonal antibody obinutuzumab for the treatment of follicular lymphoma (August)

Filed for approval of anticancer agent Perjeta for adjuvant therapy for breast cancer (October)

External Recognition

Began participation in Access Accelerated, a global initiative for addressing the rise of non-communicable diseases in low and lower-middle income countries (January)

Won Grand Prize in the Nikkei Annual Report Awards for the second consecutive year (January)


Selected as a "Nadeshiko Brand" for the third consecutive year (March)

Joint development project for anti-dengue virus antibody was selected as grant recipient by the Global Health Innovative Technology Fund (GHIT Fund) (March)

Innovation all for the patients



CHUGAI PHARMACEUTICAL CO., LTD.

 A member of the Roche group