


# **Supplementary Materials for ESG Related Information (3)**

**(June 30, 2023)**

Innovation all for the patients



**CHUGAI PHARMACEUTICAL CO., LTD.**

 A member of the Roche group

## 1. Emerging Risks (DJSI 1.4.3)

	Emerging Risk 1	Emerging Risk 2
Name of the emerging risk	Emergence of disruptive new technologies and solutions	Infringement of IP rights
Category	Technological	Technological
Description	<p>With the advancement of science, IT, and other technologies, the probability that disruptive technologies and solutions will emerge is likely to increase and accelerate. For example, technologies which have never been put to practical use, such as mRNA vaccines against COVID-19, are now being used at a speed unthinkable with conventional concepts based on special policy support from governments. As a result, there is a risk that such emerging new technologies and solutions will pose a threat to our drug discovery technologies and our major products and promising projects under development.</p>	<p>In addition to composition of matter and use patents that protect pharmaceutical products, technology patents which secure intellectual property rights are rapidly gaining in importance for us compared to other companies. Chugai's antibody engineering technologies, mid-size molecule technologies aimed at tough targets, and other research technologies are the driver of our unique and innovative drug discovery capabilities and vital to medium- and long-term growth.</p> <p>However, competition is intensifying, and the risk of patent infringement and disputes is increasing.</p> <p>Also, making predictions on the outcome of disputes becomes difficult due to the diversity and changing nature of how technology patents are protected in each country.</p> <p>The dispute between Alexion and Chugai was one such case. It was finally resolved through a settlement, but it cannot be ruled out that similar cases may occur in the future and we recognized that this risk may be realized in the long run.</p>
Impact	Excluding contingency national measures associated with COVID-19 (e.g., Operation Warp Speed in the U.S.), the emergence of disruptive new technologies and	Any infringement or invalidation of product or technology rights will result in enormous damage to product value over the medium to long term and also makes it difficult to recoup

	<p>solutions that replace our products and development projects will have a greater impact on the technologies and projects being researched and developed in-house, given a certain development period and regulations. For example, if a treatment can be completed in a single administration, such as gene therapy, our competing in-house projects may be affected from various perspectives, including effectiveness, convenience, and economic efficiency. The emergence of new drugs based on modalities or technologies that we do not possess may necessitate revisions to the development plans of our own products or to make additional investments in technology development.</p>	<p>investments. For example, a case in point is the recent new investment in the Fujieda Plant to establish a supply system for small and mid-size molecule compounds, such as the active pharmaceutical ingredients manufacturing facilities FJ2 (19.1 billion yen, for clinical studies) and FJ3 (55.5 billion yen, for clinical studies and initial commercial production). If a dispute occurs, the costs and personnel devoted to the manufacturing sites are significant, and, over time, the cost impact would grow.</p>
Mitigating actions	<p>In order to realize the new growth strategy targeting 2030, our basic policy is to pursue innovation by strengthening our own technology base through access to cutting-edge science and technology, utilizing Digital Transformation, and actively promoting external collaboration. We will continue to monitor cutting-edge science and technology, and if a new technology emerges that we don't possess but believe will have a significant impact on the value of our projects and generate synergies with our own drug discovery technology, we will actively seek to incorporate it through external alliances. Our</p>	<p>Strategic patent applications are made globally to strengthen protection of our products and technologies through intellectual property rights. We focus resources on and secure IP rights for high-priority R&amp;D projects. At the same time, we actively work to secure rights outside Japan with a view to global co-development with the Roche Group. Moreover, we are building our own database for patents related to antibody engineering technologies, which are becoming increasingly complex and sophisticated, and are using this database to plan IP strategies, including monitoring trends at other companies.</p>

	<p>policy is not only to minimize risks but also to convert them into profit-making opportunities.</p>	<p>In addition, we are also actively involved in the out-licensing of technology. Offering licensable technologies to other companies as a business prevents disputes and contributes to sales.</p> <p>We also take appropriate action regarding infringements of rights and execute lawsuits (e.g., the case of Alexion Pharmaceuticals).</p>
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