



**SHIONOGI & CO., LTD.**

R&D Day 2024 Follow-up Meeting

June 12, 2024

## Question & Answer

---

**Kyokawa** : Thank you for taking time out of your busy schedule to join us today. We will be holding a follow-up meeting for R&D Day.

First of all, I would like to introduce today's participants. Isao Teshirogi, PhD, and Chief Executive Officer.

**Teshirogi** : I am Teshirogi. Thank you.

**Kyokawa** : John Keller, PhD, Senior Executive Officer, Senior Vice President, R&D Supervisory Unit.

**Keller** : I am Keller. Thank you.

**Kyokawa** : Let's begin the session. Do you have any questions from the venue? Now, Mr. Muraoka.

**Muraoka** : Hello, this is Muraoka from Morgan Stanley. Thank you.

When it comes to interesting drugs in the future, I'm thinking S-337395 for RS virus would be interesting. I haven't studied much before, so I've been studying again for the past few days. In terms of the competitive environment, just Enanta also has a drug with the same mechanism, and they also say that the results of the challenge study will be out in July to September, in Q3.

I know that there is too little clinical information about your company, and I know that there is still too little at present, but please tell me what kind of competitive situation, not only Enanta, but you are looking about RSV in the future, and how you see S-337395 positioning itself in that situation.

**Keller** : Indeed, Enanta's compound is the closest competitor in terms of mechanism. As you understand, we are also conducting challenge trials to collect clinical data. What we are confident about is that this targeting mechanism allows us to rapidly reduce viral load and achieve efficacy.

We think that data will be available by the end of this year.

**Muraoka** : I'm not very familiar with this trial, but what do you think about its positioning as a treatment for RSV?

**Keller** : We are considering targeting children and adults. Considering vaccination, it's possible that in the United States, pregnant women may be more comprehensively covered. Additionally, for elderly, although a new RSV vaccine has emerged, there are situations where the response to vaccines is not favorable after COVID-19. We also believe important in terms of safety.

**Muraoka** : As for your compound S-337395, when will we see the clinical data on it?

**Keller** : The results of the challenge study are important data. They will come out later this fiscal year.

**Muraoka** : Is it the second or the third?

**Keller** : I think it will be in Q3.

**Kyokawa** : Next is Mr. Ueda.

**Ueda** : This is Ueda from Goldman Sachs. From me, first of all, the HIV part. I am wondering if this would be a follow-up to the one you mentioned at the R&D meeting the other day.

You have explained to us that you have a very good positioning in the long-acting area in your company. On the other hand, in the oral drug market, Gilead's marketing power was quite strong among those that, even though your dolutegravir was launched earlier, their Biktarvy had greater growth, I suppose.

What kind of development strategy will your company adopt in order to avoid the same situation in the long-acting area? What are some of the areas that we should consider when thinking about the risk of competition?

**Keller** : I think we have a significant time lead on long-acting. Having said that, there is still room for improvement for us too as a patient experience.

One thing is that we are already working on moving from dosing every two months to dosing every four months, and then we would like to move to dosing every six months. The other thing is that in the current formats, these are two large injectables. The next generation of drugs, which is administration every four months, may not offer any improvement for this point, but from a longer-term perspective, when competing products from companies such as Gilead emerge, I believe that if we can reduce the size and frequency of injections, this will be an advantage.

And we intend to offer multiple formats. This would make it easier for patients to use.

**Teshirogi** : We are trying very hard to see the situation, including ViiV, but it is not very clear. I think the easiest way to get into this area would probably be to use bictegravir building as a base, and to make it long-acting. We have been checking the patent information to a certain extent, so we don't think they are doing ultra-novel structured integrase inhibitors.

But in any case, there is too little data, including clinical data, and it is difficult to say at this stage how competitive the situation is. As John said, we try to do various things ahead of time. For example, if we use subcutaneous home injection, patients may be happy even if it is only once a month.

However, the patient's family will probably know that the patients are doing subcutaneous injections at home, so although it is convenient, it is not that great from the standpoint of privacy. But I am sure there will be such needs, so we think we will have to be very creative in our formulations, for example.

In the end, as we have explained, we can come up with integrase inhibitors, which has a higher tolerance hurdle, or they would come with integrase inhibitors plus capsid inhibitors. Considering the tolerance hurdle of capsid inhibitors are not such high, rilpivirine is not the easiest to use, but it is a reasonably established class of NNRTI. The most important thing for us is to make sure that we are always half a step or 1 step ahead and create good products as partner drugs, including capsid inhibitors and NNRTI.

When the data of Gilead's integrase inhibitors, such as two, four, and six months, come out, we have to consider how much of a threat it really is and whether it is something that we can lose in terms of marketing strategy and so on.

As for Apretude, I think we have a considerable advantage. As for the capsid inhibitors, PrEP trials have been delayed for a long time, which is unusual for Gilead, and those people have always done it quite properly, but now they are more than a year behind. The results for Apretude versus oral administration were wonderfully good for both males and females. I think it would probably be very difficult for everyone to try to do that level of PrEP.

Including that, we will be watching to see if the results of the capsid inhibitors PrEP trials will really outperform Apretude. If not, they may possibly have to do another round of PrEP trials for the integrase inhibitors. In that case, I think we would have a significant advantage.

How far will the PrEP market expand, though, depends on insurance payment, that is, how much insurance payers, especially in the US, will cover. And the situation is moving in that direction little by little. We are currently thinking that we can pretty much monopolize the PrEP trials.

**Kyokawa** : Mr. Matsubara.

**Matsubara** : My name is Matsubara from Nomura Securities. I have two questions.

The first is about sleep disorders, including sleep apnea syndrome. In your company has explained that by curing these sleep disorders; you will be able to cure the underlying causes of various diseases. This time, the use of S-600918 and the combination with X in combination will start. In addition to this, what other new drugs is your company currently considering, and what are your plans for the future?

**Keller** : First of all, the S-600918 combination, this is the first clinical development program. On the other hand, we have a drug discovery program looking at various genesis and occasions. In the future, we will develop compounds for apnea syndrome using our small molecule technology through joint ventures, while gaining a deeper understanding of clinical conditions and knowledge of the disease.

**Teshirogi** : Apnimed has an idea from previous experience that the combination of this mechanism and that mechanism should definitely be good. One of the target compounds, for example, was very old and not the best, so we thought that if our small molecule team could come out and create a better compound with that mechanism, it would work very well. We are currently working on two or so programs, and we have received hints from Apnimed that this mechanism is probably good, but there is no available compound as a tool right now, so we are asked if we can create one.

I think they have a lot of ideas. There are some existing old drug combinations that we are trying, but if we increase the activity by, say, 10 or 100 times, we may be able to create a very good combination, and we are trying to bring it back to small molecules.

For now, they don't think that one compound will cure all of four sleep apnea issues smoothly, and neither do we. The big issue now is to what extent the combination of various things can be held as a tool.

They can increase the activity of a compound considerably in about three months after we decide to do it. The compound is interesting, and then we ask them to make a little more, and we and they have a good combination.

**Matsubara** : The next one is redasemtide. I believe the application for dystrophic epidermolysis bullosa is for FY2026. I wonder if there is a difficulty in patient incorporation, which you have been telling us for some time. It says here that you are in the process of implementing something that will promote patient inclusion. What exactly is this?

**Keller** : As for the recruitment situation, first of all, our criteria for patients are strict, which makes recruitment difficult. This is a very rare disease with a very small number of patients.

We recruit in collaboration with leading experts, but the trial will take a little longer as we need to find suitable patients and have them willing to take part in the trial.

**Matsubara** : I think you mentioned one case so far, but what about now?

**Keller** : Now we have two cases.

**Teshirogi** : I think it will be very difficult unless we have them looked at it by the authorities from some point and then change to a Phase IV style of accumulating data.

I feel that it is very difficult to develop rare disease drugs in Japan, including rovatirelin that we are working on with Kissei.

I think we know exactly where and how the patients are located through the gathering of doctors., so we are making that request. However, the criteria are too strict, and even things that are no longer possible in normal daily practice, including follow-up, have been included as requirements, so it is not easy to recruit. But patients are waiting, so we want to provide drugs as soon as possible.

**Matsubara** : Thank you.

**Kyokawa** : Mr. Hashiguchi.

**Hashiguchi** : My name is Hashiguchi from Daiwa Securities. Thank you.

The question is about strategy and the creation of a mechanism to support it. I was thinking that what you wrote on page 28 of the slide was really true. I think the reason why obesity is now attracting so much attention and expectation is that curing it can lead to the improvement of various diseases.

Your company has been challenging obesity not only for S-309309 but also for many years, and it may be a bit presumptuous or impolite to say your company has foresight in this regard. I feel that you are a step or two ahead of others in setting goals for what you are going to do.

But how do you do this, selecting the targets you have described here before the market manifests itself? If it becomes like obesity, I think the competition is already very fierce now, so then I wonder if it is necessarily cost-effective to say the next S-309309 or the next and so on. After all, how can you choose the next place to go before this happens? How can you create a system as a management that allows you to select them and invest resources in them?

Why did it go so well in case of obesity, at least in terms of the area? Also, as for the future, how are you planning to accomplish that? As a result, you mentioned on page 30 that this is what you are selecting now, but could you tell us how you are selecting this or how you will select it in the future?

**Teshirogi** : We have included the concept in the presentation of the medium-term plan. At present, the entire earth has a population of about eight billion people, and this number is expected to increase by about two billion to about 10 billion. The developed countries all have their own insurance financial problems, etc., and when we consider the growing market and the number of people, LMICs are expected to grow. But that's where the infrastructure as a health care system is inadequate or the medicine is really expensive and if the people really use it or not. In that sense, it is still developing as a market.

Talking about this kind of thing with many young people in our company; for them, the situation is still in a latent state, but the time will come when it becomes apparent. I think it is important to continue to talk to young people, especially those in their 20s and 30s, and tell them that it would be great if there was a medicine like this, and that it would be great if there was a solution when they reach 60 or 70 years of age.

As people's lifecycles change, including automated driving, smartphones, and virtual reality, we are thinking about what people are looking for and what they would like to see in a product like this. We are rather strong in small molecular drugs, so we think about whether or not it is realistic to choose a disease and consider whether or not it is possible to manage it at a more affordable price, rather than with an oral drug or JPY100

million per treatment. John and Tachibana from our Company realized our strength, and they went looking for a partner that was dealing with such diseases, and they found Cilcare, although most people probably did not know about it.

We spent about a year talking with such people and decided that if we were going to work in the field of hearing loss, we should partner with a company like this. We have been participating in a number of venture funds, and we have been in constant discussions with people who have a good eye for what is needed to help people with sleep apnea, hearing loss, and sarcopenia, and we choose what we can do with our people, money, and goods that we have available.

If we expand our interests too much, it will reduce the resources we have to spend on all parts of the project, and we may not be able to really finish it as a work of art. I guess there are more things John want to do, but the reality is that the number of projects we can do is up to three or four. When this happens, we are in a phase where once we move forward, including investors, and we have good results in Phase II or Phase III, for example, we are in a phase where people want us to show them, not just our own praises. Therefore, we think that now is the phase to concentrate on that and think about getting results with this, not expanding it now.

However, as a process, we discuss the process leading up to that point and think about what kind of diseases we should target. We search around for suitable partners in the world and talk with them. When we found we can cooperate together, we started to work with them. That is where we are now.

**Hashiguchi** : I understand very well. Thank you.

**Kyokawa** : Thank you very much. Mr. Wada, please go ahead.

**Wada** : This is Wada of SMBC Nikko Securities. Thank you.

I would like to ask you about your strategy for modality. As you mentioned in your presentation, I think you are focusing on small molecules. You have tried a new modality. In the document, it is on page 15. I think you are starting to work on vaccines, antibodies, peptides, and nucleic acids.

What I wanted to ask you is on page 5, about the profit margin in the mid- and long-term. You have shown us the JPY800 billion targets for 2030 in the bar graph. I would like to ask what you expect this profit margin to be.

I think the profit margin will inevitably decline as the cost ratio rises due to the shift in modalities, such as vaccines and antibodies, to the biopharmaceuticals side. I am just wondering how you are looking at this area right now.

One of your strategies is to go forward with small-molecular products, but there is still a lot of competition in that case. I think the advantage of a new modality is that there are fewer companies competing with it, so to a certain extent we can compete in the blue ocean.

As for your strategy how to win the competition, I understand that your company's SAR and medicinal chemistry are strong, but I would like to ask you what you think is the key to your company's success against the competition in this area. What do you think?

**Teshirogi** : Whether it is possible or not, as I mentioned during this R&D Day, we have EBITDA as a KPI for this revision in order to promote investment and to promote the fact that it is okay to spend money properly within the company. I believe that the strength of our Company lies in the fact that we, the management side, are able to properly deliver operating income and pre-tax income.

I have heard from various people that there are many cases in other companies where operating income is somehow lower because they overspent a little on R&D or SG&A expenses, and they told us we do a good job of delivering. We should recognize that as more of a capability than we think we have.

We were told that while this may seem obvious to us, it is by no means the norm. Of course, royalties, actual sales, low-cost products, and high-cost products are all included, but it is wonderful to have a business portfolio that can consistently generate an operating margin of around 35%. However, our current thinking is that we are now in the phase of increasing sales while considering how to maintain an operating profit margin of about 35%, and we would like to somehow achieve this.

Therefore, we do not believe that the operating profit margin will decline as a result of sales growth, which is not the direction we are heading in. And we wondered if that could be done in reality. There are not that many companies that sell, say, JPY800 or 900 billion and consistently generate 35% operating income.

This is not an established business model, but that is what we would like to aim for. Considering the thoughts of many companies, the reason why we are increasing the number of modalities is because we want to cure diseases, and we want to have the capability to provide the most appropriate modality for the disease that needs to be cured; it would be a complete reversal of the situation if we happen to lack the capability to do so.

Since our business is based on diseases and patients, we do not want to say, "We cannot do this," so we are trying to pursue a diversity of modalities.

As for small molecules, I totally disagree with Mr. Wada, because I don't think there are that many companies in the world that are moving forward with small molecular capabilities, and I don't think there will be any increase in the future. If the small molecule area is well suited to a therapeutic area or a disease, it is possible. We believe that the small molecule is the blue ocean, and the cell therapy, gene therapy, and antibodies as large molecular antibodies and these are becoming the red ocean.

When I talk with various US and European mega-pharmaceutical companies, I receive many requests to work with our small molecules, so I think our competitiveness is clearly increasing.

On the other hand, to be a bit fishy, the amount of medicinal chemist students in our country, for example, is drastically decreasing, so it is becoming extremely difficult to secure them. Therefore, we are in a position where we can no longer obtain many graduates from the pharmaceutical and other fields, so we have a process in place to bring in people who are involved in various syntheses in the fields of science, engineering, and agriculture, and then nurture them as medicinal chemists.

The Qpex arrangement is very good in terms of hiring people from overseas as well, and people are coming back to work if they can do antibiotics. They wanted to do small molecular but no one let them do it and there was no place for them to do it. These people are coming back to us and saying that they would return if they were allowed to do antibiotics. I hope that we can differentiate ourselves from our competitors taking it as our strength.

**Kyokawa** : Ms. Sogi.

**Sogi** : Thank you. I would like to hear more about the company as a whole, rather than focusing on R&D.

First, I would like to ask you about the long-term and short-term. As for the long term, as you mentioned, you were talking about profit margins. In the case of your company, about 50% of the profit comes from cost-free royalties, and while you have been very successful because of this part of your business, I think it will be quite a challenge to secure the profit margin and especially the bottom line when that part of your business is lost.

At this time, you indicated the percentages for HIV treatment and HIV prevention, Could you tell me how much the sales of long-acting treatment and preventive drugs will be in 2031?. First of all, I think this is probably the baseline forecast of your company.

In this baseline forecasting, the sales forecasting and bottom line forecasting that your company is doing now, the profit margin that your company is now talking about can be secured or further progress can be made in the form of LA transfer from the current daily sales forecasting. Is that what you are planning to do now?

**Teshirogi** : Of course, we are not saying this without numbers. In our partnership with ViiV, we have calculated the royalties for this amount of sales, and although we do not disclose all the details, we have also calculated the royalties that would come from this kind of sale in this way.

ViiV said at the HIV Day in September last year that when the dolutegravir cliffs came in, they said that Dovato, which is used as a single drug, would remain in a certain amount. Even oral drugs will not suddenly become zero, and that the LA formulation will become like this from our own conservative point of view, and that we will calculate the royalties for each region. Then we confirm that there are no cliffs there. I don't think there will be any decline, except for a slight flattening in 2028. Our thinking is that the market will continue to grow from there.

However, we have not answered "yes" or "no" to these questions, because there are many people who have read various patents who say, "But that's 2033," "That's 2038," or "That's 2035." In any case, given that something is going to happen somewhere, it is clear that we will have to continue to produce new items with strong intellectual property for a long time beyond that in order to fill the gap.

In addition to the S-365598 that we can see now, we will also create long-acting, high-tolerance integrase inhibitors and partner compounds, and ViiV will develop and promote them, so we can calculate at least this amount of royalties as a base sometime in the 2030s or 2040s. If we calculate backward, we can draw a timeline for when we need to release a new integrase or partner drug to ViiV, for example.

Then John's team said that since they could not take things so slowly, we had to invest a great deal of chemist resources in HIV and create something anyway. So the picture I showed you the other day is what we are seeing at this point.

For the next few years until 2030, while it may vary from person to person, it is generally believed to be relatively stable. However, there is an understanding that at some point this situation may change, and it is at this current time that we are beginning to consider how to respond to such a scenario.

**Sogi** : I understand. Thank you. And as for the year 2025. The current target for 2025 appears to have a much gapped top line compared to your company's guidance for 2024. Of course, it meant that you would be involved in various activities during the year 2024.

Do you have some confidence that this is going to happen in 2025, or do you have confidence at this point, or do you have confidence based on the assumption that something will happen? What is that and which timing or when do you think that confidence will come?

**Teshirogi** : Of course, I cannot say that, as a matter of fact. However, we cannot submit a budget for FY2025 unless we have a clear picture by the end of this fiscal year, so if we do not have all the materials by the end of FY2024 we will not be able to submit a budget for FY2025.

It is not possible to say that a miracle will happen in FY2025. I am not even in the office much right now to be able to see if there is this or that or this or that coming within FY2024, because I am running around in a lot of different places.



**Sogi** : Thank you.

**Kyokawa** : Once I see the hands have been raised on the web, Mr. Tsuzuki of Mizuho, please.

**Tsuzuki** : I'm Tsuzuki, Mizuho Securities. Thank you. I would like to comment here on HIV at first; I think you're right in that it will be safe until sometime in 2030s.

What I wanted to ask you is that there are cases where other companies are using capsid inhibitor in combination in the area of HIV. As a person focused on HIV, I can tell you that when HIV is treated with capsid inhibitor, mutations will eventually occur. I think the process will be that physicians will consider the ease of use and capsid will be the last to be used. In that case, I am very interested in CAB400 plus rilpivirine, which is easy to use and has a sense of security, and which has a longer half-life, as shown in the CROI data.

I'm wondering if one of the major events is that the selection of either there or the N6LS neutralizing antibody will be made in H2 of the year. I wanted to ask first of all if there is any specific timing when this would be available.

**Keller** : Currently, we are planning to launch a treatment drug that is administered once every four months in combination with cabotegravir in 2027, and a prophylactic drug for single-agent use in 2026. In addition, we are currently exploring long-acting partner compounds, and while ViiV has a capsid inhibitor in its portfolio, we are not focusing on capsid inhibitors.

**Teshirogi** : It is expected to come out in some form from ViiV later this year, this fiscal year. We do not yet have a full understanding of the form in which the drug will be presented at which conference, but we are aware that some kind of partner drug will be presented during the current fiscal year, for example, if it will be administered once four months.

**Tsuzuki** : I understand very well. Thank you. One more thing; in the area of quality of life diseases, including sleep apnea and hearing loss, I understand that your company has the advantage of optimizing small molecules, while at the same time exploring basic research, which is a good match in terms of collaboration with other companies.

This project is including hearing loss and sleep apnea, which you have mentioned, but how much will you increase the number of these projects in the future? For FY2025, do you plan to increase the number of sleep apnea and hearing loss cases, or are you going to put them all together for the time being? Please let me know that point.

**Keller** : We are currently working on these diseases, but there are various categories within them. So there are different categories of patients. The situation is also different for each disease.

For example, sleep apnea has various causes. It might be instability of sleep, or there are many other causes. For each cause, different combinations of drugs will be required. We are considering approaches that include multiple small molecule combinations in collaboration with Apnimed. In addition, for hearing loss, we are considering collaborating with Cilcare in the form of neurosynapsis and small molecule therapy. As for hearing loss, additional modalities may be needed if hearing is to be secured again. I think there are some areas that cannot be addressed by small molecules. We are currently trying to proceed development as soon as possible. We are exploring the possibility of new modalities while advancing clinical trials and conducting clinical trials with small-molecule drugs.

**Teshirogi** : T To directly answer Mr. Tsuzuki's question, although there are various mechanisms for sleep apnea syndrome, the mechanisms are indeed numerous. There are other approaches to hearing loss, but we are considering within our scope for now.

On the other hand, when four or five venture capital firms that we are offering will find interesting diseases, we would like to be flexible about whether or not we would take those deals and quit something we are currently doing. That is one of the strengths of a company our size, so if we think this is definitely more interesting, we may go that way.

However, since resources are limited, we have asked to spend JPY120 billion for research and development, but we are not talking about JPY150 billion or even JPY200 billion. We would like to do what we think we can do within the framework of the budget and human resources. At this point, we believe that these two diseases (sleep apnea and hearing loss) are our advanced strengths in the world.

In terms of playing the game where we can win, I think this is a good place for us. It's not that we don't think anything else. That is where we are thinking opportunistically.

**Tsuzuki** : I see. And just one more point from me. One point I would like to ask is the timeline for the vaccines in the future at the vaccine platform.

The COVID vaccine is in Phase III testing and is now in Phase III for XBB1.5, but I have to admit that I can't say anything about that because other companies would have only had to do Phase I, but your company has been forced to do Phase III.

I was wondering if you could give us your perspective on what risks you would consider if this Phase III is not achieved, and your sense of the schedule for the vaccine platform.

**Teshirogi** : For the platform, the others are also asked that they do Phase III at least once for the mutant strains anyway, and if it is reasonable data, it will be accepted as a platform. From that point forward, we are told that we don't need every single clinical trial. In that respect, I think we are being treated fairly.

The more we work on vaccines, the more interesting and profound they become. First of all, I believe that the universal vaccine that will begin at the end of this fiscal year will be a milestone as the next step for us.

We are going to look at the data in humans to see how broad-spectrum neutralizing antibody titers can be acquired. On the other hand, we have two or three adjuvants in addition to the ones we have been using. We are also going to try to find out what kind of adjuvant combination would be best.

We think we will be able to see what we can do in and outside of the next year in terms of our platform or capabilities there.

On the other hand, there are many venture companies involved in various vaccines, and they are contacting many different companies. To be honest, we have talked with two or three vaccine venture companies that have interesting technologies. If we consider that we want to have such technology when we develop and market vaccines in the future, we would like to collaborate with such venture companies that are involved in the vaccine business.

**Tsuzuki** : I understand. I think you mean you are working on the storage area of spike protein for universal vaccines, I am expecting your efforts. Thank you.

**Teshirogi** : Thank you.

**Kyokawa** : Now, another person from the Web, Mr. Wakao from JPMorgan, please go ahead.

**Wakao** : I'm Wakao from JPMorgan. Thank you.

**Teshirogi** : Thank you.

**Wakao** : There is only one question. Please tell us about your company's small molecule drug discovery capabilities outside the field of infectious diseases. I think that your company's track record and small molecule drug discovery capabilities in the field of infectious diseases are already clear. On the other hand, I am wondering if there are any issues with your small molecule drug discovery capabilities in the field of non-infectious diseases.

Most recently, small molecules have been introduced in the field of non-infectious diseases, and with S-309309 case, I wonder if it is difficult to see whether your company's small molecule drug discovery capabilities in this field are really high or not. I would like you to tell us about this point.

I wonder if your company will be able to strengthen the non-infectious disease area as well by incorporating the design, etc. in the future, maybe initially from another company, but now it is difficult to see in terms of results, so please tell us about this again.

**Teshirogi** : I think that is a very valid question. We are struggling with the question of how much animal pharmacology can be extrapolated to humans, and how to fill the gap between infectious diseases and other diseases where there is a huge difference.

The reason why we are working with Apnimed and Cilcare is that, as strange as it may sound, there are not that many reproducible animal models in their field, and Cilcare has even been a CRO for hearing loss. So they have a good understanding of the clinical panel and how and where the patients are located. It's the same for Apnimed as well.

Therefore, we will make every possible effort to ensure toxicity and safety, but rather than accumulate various data on animals, we would like to develop a model that allows us to see the efficacy of the drug in humans. It's a kind of experimental, I am wondering if it is possible to create a model in which human information can be fed back to the small molecule one more time.

For example, in the field of depression, CNS, and dementia, we can obtain the proof of mechanism just because the data is available in animal experiments, but can we really obtain the proof of mechanism in humans? I think it is better to see with the clinical panel, which makes more sense in various terms.

I believe that these two areas, including Apnimed and Cilcare, will serve as a bridgehead, in a sense, for how we will evolve areas other than infectious diseases in the small molecule field. We believe that the points you have pointed out are very important, and while discussing these points internally, we are now trying to determine what areas we can go into.

**Wakao** : I understand very well. Thank you.

**Kyokawa** : Thank you very much. we will return to the venue and an additional question from Mr. Muraoka.

**Muraoka** : Excuse me, I would like to ask about Pompe disease. I don't know if I should call it Pompe disease, or pediatric rare disease. I was wondering if this is an area where you have to have one, or if it's an area where you have to bundle up a bit more. Is it safe to assume that thickening things up a bit more in this area is a fairly realistic strategy for the future?

**Keller** : I would like to explain Pompe itself and then cover it as a rare disease.

Patients with Pompe disease can live a long time and it is not limited to children. But at present, ERT is the only treatment available. Patients are not satisfied with the current market. Disease progresses and can be very difficult, especially for pediatric patients. Every two weeks they have to go to the hospital for a four-hour infusion.

The enzyme, however, does not enter the muscle. Our compound stops the production of glycogen in the first place. This will be available as add-on and also as monotherapy.

We believe these strategies are very exciting. We are a small molecule company, so we are very excited to be in a place where there are only macromolecular agents.

We also have experience with rare diseases with Fragile X. We have experience in drug pricing, pricing, clinical trials, and commercials.

As for Pompe disease, we have such a platform, although it is important to have a relationship with specialists and KOLs. We also have a platform for rare diseases related to nerves and muscles. We are developing drugs for rare diseases with both of these compounds, but we would like to consider additional compounds.

**Teshirogi** : The answer is YES. I've been contacted by quite a few ventures that are doing this kind of thing. Of the several compounds, Maze actually is one of them, and they want to be the leader of their own. Their compounds are very interesting, so they talked to Sanofi first about who would be interested in working with them, and now they have come to us.

They have been working on this project up to this point, and they have even done Phase Ib or something. They were in a situation where they were looking for someone to work with them, and a lot of venture companies who saw Pompe's deal contacted them. For this reason, this guy is flying around to different places. Mr. Muraoka's idea that bundling two, three, or four together is the right solution is quite correct.

It's hard for us to say this, but they will be able to say that much to us as well. Maybe there is a community including Maze and others. When these people say, "Yeah, they are interesting," they say, "Well, let's contact them" and come to us. There is one more that we are looking at quite seriously right now, but we think we need to bundle some of the others since they are coming by quite a bit.

**Muraoka** : We were [inaudible], and I was just imagining as I was watching this story that your partner was bringing this kind of story. Perhaps it would be more efficient to collect a few bundles here.

**Teshirogi** : That is probably true.

**Muraoka** : Regardless of the modality, if it is a treatment method for this disease, your company is flexible [inaudible].

**Teshirogi** : Of course, as I mentioned earlier, it is true that people are more likely to ask us if we would like to work on small molecules; however, it is also true that some people have told us that they are interested in working on pediatric rare diseases and have looked at the R&D Day materials and asked us to take a look at this area. It is very easy for us to deal with them.

**Kyokawa** : Thank you all for your time today.

**Teshirogi** : Thank you.

[END]