

Super Genius DNA #Chapter 31: Probiotics (1) - Read Super Genius DNA Chapter 31: Probiotics (1)

Chapter 31: Probiotics (1)

What are drugs? If someone answered that it was to treat diseases, they would be half right. The concept of drugs encompassed the prevention of diseases as well. Young-Joon was going to continue the line of research on the treatment of neurological disorders using stem cells, but he had to start something in the healthcare field now at the latest since this could take a long time.

The keyword in the center of healthcare was probiotics. There were almost one thousand five hundred kinds of microorganisms living in the gut, and they had almost one hundred fifty times more genetic material than one person.

The huge amount of biomaterials that are expressed from their genetic material are released in the form of microspores, then reabsorbed into the human body. They are sent to various places through the blood.

It would be strange to think that they wouldn't have an effect on the body. It was pretty well-known to the public that *Helicobacter pylori*, one of the microorganisms that lived in the stomach, could cause stomach cancer in some people. That was why hy Co., Ltd, a Korean yakult company, made Helicobacter Project Will, saying that it was a probiotic drink that would destroy that.

Helicobacter pylori was the most famous one, but there were reports about microorganisms in the stomach and cancer every year. One of the most recent papers found that proteobacteria and actinobacteria species could cause pancreatic cancer.

It really showed that gut microorganisms could really drive or suppress cancer. It was not the only reason for cancer development, but it seemed certain that it was an important reason.

These discoveries hadn't been studied deeply enough or become widely known. That was why there weren't many people who bought probiotic products even when new ones were made, and it wasn't as good for profit from the company's perspective. Just in terms of money, developing a new anticancer drug could be better for profit short term.

But shouldn't scientists who fight for the health of humanity show the potential of probiotics to the public and supply the market with an excellent product? In terms of preventing diseases, it could be an item that contributes more to human health than stem cells.

"...And A-Gen's profit on probiotics has continuously gone down after the release of Roche's Active Lactobacillin," Young-Joon said.

Five scientists from the Health Food Department, including Choi Myung-Joon, cleared their throats in embarrassment as they read the chart Young-Joon was presenting.

A joint department meeting was happening in the meeting room of Lab Six. From the Life Creation Department, Young-Joon who proposed this meeting, Koh Soon-Yeol and Park Dong-Hyun, who both have experience with probiotics, and Department Head Cheon Ji-Myung were in attendance.

The Health Food Department was much bigger and had around twenty people, but there was Choi Myung-Joon, Seo Yoon-Ju, and three new people here as they specialized in probiotics.

Young-Joon said, "To be honest, I don't think it's the Health Food Department's fault that we lost our share in the market. There isn't much of a difference between our product and Roche's right? It's more of a failure in marketing rather than the scientists."

"But we could have beaten Roche if we developed a better probiotic product," Cheon Ji-Myung added.

"But probiotics have been developed to their fullest. There isn't much we can do now." Choi Myung-Joon made excuses as if he was letting his frustration out.

"Like Doctor Ryu said, our product is similar to Roche's, right? It's because we have developed it as far as it can go. The scientific community has analyzed one thousand of the gut microorganisms in the body. There aren't any better products."

Young-Joon shook his head.

"There are definitely problems in our existing product. If we find a solution to that, it will become a better product." magic

“What problems?”

“First of all, the biggest problem: even if you take probiotics, your gut microorganism composition doesn’t change very easily. It’s because the ones that already exist are too strong and too high in number.” Young-Joon explained.

Gut microorganisms were like the old guards; the ones that established themselves first killed and drove out the ones that came later on. Because of this, the gut microorganism composition did not change easily even if one took a lot of probiotics.

“Actually, among the recent papers published in *Cell*, one proposed that most probiotics get discharged as is because it is difficult to get rid of the microorganisms already established there. It’s hard to establish them in the gut if we don’t use probiotics customized to the individual.”

Seo Yoon-Ju suddenly raised her hand.

“So I was thinking. What if we make probiotic formula for infants? I have proposed that idea for a long time. What do you think, Doctor Ryu?”

Infants who were just born do not have any microorganisms in their gut because the uterus of a mother is a sterile environment. There were many microorganisms in a woman's vagina, but they could not easily invade the uterus. Basically, humans were first introduced to microorganisms from the moment of their birth. As such, the best plan would be to help beneficial microorganisms to establish themselves during early age.

“But that is dangerous,” Young-Joon disagreed.

“It’s a good plan, Scientist Seo, but it could be harmful to give them probiotics, a large amount of bacteria, because they have a weak immune system. Even if they are beneficial.”

“Then we don’t really have a good plan,” Choi Myung-Joon said.

“So, like the old plan, we’ll have to use probiotics for a long time and make them fight for their place in the gut.”

“Or we can use antibiotics to destroy the existing microorganisms in the gut. It’s violent, but theoretically possible,” one of them from the Health Food Department added.

Young-Joon interfered in their conversation, “Don’t do that. Maybe we should change the bacteria strain.”

“The strain?”

The scientists all stared at him with wide eyes.

“There is a strain called *Clorotonis limuvitus*. Let’s use that.”

“What’s that?”

“It’s a bacteria that usually resides in volcanic soil. There should be a lot in the soil near Mount Sinabung, one of the volcanoes in the Sumatra islands in Indonesia.”

Young-Joon had looked up this information beforehand with the name of the strain.

“No strain can match *limutivus* in terms of its advantages to the human body, but it also has excellent intestinal viability, so it can destroy other microorganisms and establish itself. We don’t have to use harsh methods such as antibiotics.”

“ ... ”

Everyone was quiet for a moment.

“You want to use bacteria living in volcanic soil as probiotics?”

“It will be the best strain. Let’s reduce all *Lactobacillus* types in our existing product by two percent, and include eight percent of *Clorotonis limuvitus*.”

“ ... ”

‘*There he goes again. Doing something weird.*’

Park Dong-Hyun stole a few glances at Young-Joon. Putting bacteria that live in volcanic soil into a person’s intestines was no different than just eating dirt. They were not more surprised because Young-Joon was the one saying it,

and it had an unreasonable level of persuasion because he said it. Well, Park Dong-Hyun was going to support him anyway, but he was a little worried, to be honest.

For everyone else, Seo Yoon-Ju asked, “Doctor Ryu, is that true? How do you know that?”

Young-Joon made up an excuse.

“*Clorotonis limuvitus* is a strain of bacteria I kept in mind after hearing about in a microorganism conference when I was a student. No one has tried it as an intestinal microorganism, but I think it will be effective according to the papers I’ve seen on it.”

Seo Yoon-Ju still looked like she could not accept it.

“But Doctor Ryu, that *limuvitus* thing or whatever. It’s a strain that has never been known as an intestinal microorganism, right? That means that it hasn’t been found in a healthy person’s gut during studies. Will it really be safe and effective?”

“That’s because the concept of healthy people is based on citizens of developed countries. We just didn’t know about it because there hasn’t been much research done on non-Western people since science was a Western-centered subject. For example, if you analyze the gut microorganism composition of people living in long-living villages in Nepal or Tibet, you will find a lot of this strain. We could also use this in marketing, saying that it’s usually found in residents of long-living villages.”

Everyone from the Health Food Department in the meeting was at a loss for words. They just stared at Young-Joon in shock.

Young-Joon said, “Well, if you can’t believe me, you don’t have to do it. We’ll pay the fee, so just let us borrow your facilities. We can set it up ourselves.”

“No! Let’s do it together!” Choi Myung-Joon shouted urgently.

It was obvious that people would have reacted like this when he first brought up iPSCs. They would have all listened to him in bewilderment, wondering what the hell he was talking about.

But Young-Joon probably mentioned it because it was something that he could do.

‘Of course I have to get on this first-class wagon. We have an incredible driver.’

“Please let us be part of it,” Choi Myung-Joon said once again.

“Alright. But our Life Creation Department has never studied microorganisms before. So I was wondering how the Health Food Department obtains new microorganisms?” Young-Joon asked.

“If it’s a registered strain in the ATCC or KACC, we buy it from there. If there isn’t a vendor, we contact labs who are selling it and get it there. If we can’t do that, we go there ourselves and get a sample.”

“They probably won’t sell it at places like the ATCC because it’s such a unique strain. There should be some foreign labs that are studying *limuvitus*, so we’ll have to contact them to get it,”

“We will begin that part. We have connections to labs that study microorganisms in major universities,” Choi Myung-Joon said.

“Sir! I found it!”

As soon as Choi Myung-Joon finished his sentence, Seo Yoon-Ju, who was sitting next to him, shouted with her phone in her hand. She showed him her phone screen.

“This is the excel file of the list of microorganisms we got from the lab from University of Madras in India. It’s here, *limuvitus*.”

“Good. We will make sure to get this,” Choi Myung-Joon said.

As they were a team who had originally worked on probiotics, they definitely had good infrastructure and plenty of sources to get the bacteria strains. If Young-Joon did this all by himself, it would have taken him at least a few weeks to find a lab that studied *limuvitus*.

“Then please purchase that. We will start experiments as soon as they arrive. And we will collaborate with Celligener, a venture company, for this project.”

“Celligener?”

“Yes. They work on probiotics as well, and they have a new coating technology. This product will be completed only if we use that technology.”

“Of course. We will prepare a meeting.”

Young-Joon got up from his seat. As he left, Jung Hae-Rim appeared.

“Oh! Director Ryu. You were here.”

“...Please just call me Young-Joon. I haven't even been appointed yet...”

“I heard that I have to look good to you because there will be a lot of competitors.”

“Dong-Hyun-sunbae told you that, right?”

“Yes.”

Jung Hae-Rim covered her mouth and giggled. Young-Joon stared at her with a disapproving look and found Koh Soon-Yeol walking past them.

“I wonder if Soon-Yeol-sunbae will be alright,” Young-Joon said.

“Why?”

“We're going to work with the Health Food Department because of probiotics. I'm ambivalent about their department, so it doesn't matter to me if we work together since they have a good infrastructure and network, but even if Soon-Yeol-sunbae got his apology and money for the clothes, I'm worried that it will be emotionally exhausting...”

“Huh? You haven't heard the news?” Jung Hae-Rim asked with wide eyes.

“What?”

“Soon-Yeol and Yoon-Ju are dating.”

“*Cough!*”

Young-Joon's saliva went down the wrong way because he was so surprised. He began coughing.

[Starting to normalize breathing.]

[Relieving irritation of submucosal receptors.]

“They’re dating?”

That news was the most shocking thing Young-Joon had heard recently.

“The money Yoon-Ju gave to Soon-Yeol for his clothes was originally for her trip to Tokyo. But apparently, Soon-Yeol heard that and asked her to go to Tokyo for him and get a Kohaku figurine for him at Akihabara. But then, Yoon-Ju went to Akihabara and opened her eyes to a whole new world. She became a fan immediately and broke up with her boyfriend who she wasn’t on good terms with. Then, she actively pursued Soon-Yeol, saying that he was cute when you looked at him closely...”

“Holy shit...”

Now that Young-Joon thought about it, Seo Yoon-Ju was looking at Koh Soon-Yeol with lust. He did not imagine this plot twist.

Jung Hae-Rim said, “You live to see such weird things, right? Soon-Yeol is actually quite a charming person. Even now, Soon-Yeol is the one giving her a chance. Apparently, he only smiles a couple times when they talk about Kohaku.”

She giggled, then suddenly remembered something.

“Oh, right! Young-Joon, there are reporters outside. I actually came here to tell you that. You said you were doing an interview in the afternoon today.”

“Yes. I’ll be back.”

After the release in *Science* and CNN, Korean reporters were calling A-Gen every day and asking for interviews. It was fun at first, but now, it was burdensome and tiring.

‘I’ll do this one and then decline any other ones.’

* * *

On Friday evening, when the *Science* special was published and before Young-Joon had the joint department meeting, Choi Yeon-Ho, the CEO of Celligener, called Song Ji-Hyun, who had just come back from her break, into

his office when she was experimenting. He showed her Young-Joon's *Science* paper and interview. Her eyes widened.

"Doctor Song, is this the A-Gen scientist you mentioned before?"

"Yes, that's right."

"He was the one who requested a meeting with us to work on probiotics together, right?"

"Yes."

With his fingers on his lips, Choi Yeon-Ho stared at the young man's face that was on the interview page. Song Ji-Hyun had told him that he was a scientist who worked on stem cells in the Life Creation Department or something like that. And she said that he had asked her to work together in creating a new probiotics product.

'How good could a person who works on stem cells be at microorganisms?'

Choi Yeon-Ho had just laughed it off when he heard that from Song Ji-Hyun. He didn't know how good he was at microorganisms, but he did something huge in stem cells.

'Well, I didn't know he was this good. It's a completely different thing now...'

Induced pluripotent stem cells—it was an incredibly ingenious and revolutionary thing. The fact that he differentiated it into optic nerves was huge as well, but it took him less than two months to get results in animal experiments with that.

'Is he human?'

It didn't seem like a person as talented as Young-Joon would not know what he was talking about. He must know something about probiotics, and he would have asked them to collaborate on a project because he knows how to do it.

"This person. What kind of person is he?" Choi Yeon-Ho asked.

Chapter 32: Probiotics (2)

“Doctor Ryu Young-Joon obtained his doctorate from Jungyoon University and is working at A-Gen,” Song Ji-Hyun explained.

“A-Gen...”

Choi Yeon-Ho thought about the name for a while.

“Right, he said A-Gen in his interview, too. Ugh, why does it have to be A-Gen again...”

Choi Yeon-Ho covered his face with his hands. Celligener had a traumatic memory of A-Gen. Even right now, their management was being swayed by A-Gen because of their investment.

“Doctor Song, if we collaborate with this person, will we be able to solve the problems with the probiotic we are working on?” Choi Yeon-Ho asked.

Song Ji-Hyun thought for a little bit. When she first met Young-Joon, he said that there was no point in digging deeper into bifidobacterium when he was looking at Roche’s probiotics, and that proved to be true. He was someone who worked on stem cells, but he knew how to suppress the parvovirus in animals as well. He shook *Science*, the best scientific journal in the world by making induced pluripotent stem cells. He was a mysterious person, and Song Ji-Hyun could not figure out his specialization. She could not determine the depth of his knowledge. That was the kind of scientist he was.

And Young-Joon said that they were going to make a product that would dominate the probiotics market.

“I think it will be good if we collaborate. I think he will be of great help.”

“What about his personality? I want to work with someone who keeps their research ethics. We suffered a lot with the new liver cancer drug, right?”

If it was Gil Hyun-Joon or Kim Hyun-Taek that Choi Yeon-Ho was asking, they would have been furious and would have said that he was clinically insane when it came to research ethics.

But the image that popped up in Song Ji-Hyun’s head was not Young-Joon cursing at Kim Hyun-Taek or insisting that he could not give a penny of royalties to Gil Hyung-Joon. She thought about how Young-Joon revealed a

company secret in front of a scientist of a competitor in order to save her golden retriever.

It wasn't enough to judge a person's character, but that incident was deeply embedded in her head.

"I think he is an amazing person."

"Good. Then let's set up a meeting. Please contact them and get a date," Choi Yeon-Ho said.

* * *

Celligener's existence depended on this probiotic product. If this product's process development went well, they were thinking of getting a lot of money and escaping the hands of A-Gen.

There was a reason they chose probiotics. First of all, the market had a huge growth potential; they could maintain the company through a stable source of income if they established themselves there. Second, even though A-Gen was dominating the Korean pharmaceutical and healthcare market, they had a weak spot in probiotics because ActiveBio, Roche's product, was quickly taking over the international market.

In this situation, A-Gen would not be able to scream about making them close doors like they did with their new liver cancer drug because if Celligener held out engaged in a legal dispute, Roche would seize the opportunity of the scandal and take the Korean market.

As such, they developed a new capsule coating technology, and based on that, they tried to make the best probiotics.

But they had a problem. Could they find the solution in this meeting?

As Celligener's representatives, Choi Yeon-Ho, Song Ji-Hyun, and Principal Scientist Gu Dong-Ho went to A-Gen to visit Lab Six.

"They definitely have a big lab because they are a big company," Song Ji-Hyun said with a little admiration.

"To be honest, I'm a little jealous that they have six of these."

Choi Yeon-Ho let out a sigh inside.

'Celligener should be this big, too.'

If A-Gen didn't steal the new liver cancer drug from them, they would be a much bigger company by now. A successful and huge company like A-Gen stole from a start-up pharmaceutical company that was the size of their palm. To be honest, it was unfair and infuriating.

Choi Yeon-Ho, Song Ji-Hyun, and Gu Dong-Ho received their visitor passes at the Lab Six entrance and went inside. They looked for the meeting room in Ward One, but they could not find it; it was hard to navigate because the building was so big.

"I'll try calling him."

Song Ji-Hyun called Young-Joon, but all she heard was the dial tone.

"I guess he's busy," Gu Dong-Ho said.

"Maybe he's preparing for the meeting since it's soon."

Song Ji-Hyun looked a little worried.

That was when two women wearing lab coats appeared at the end of the hallway with excited faces. They could hear them talk as they walked in their direction.

"Wasn't that Doctor Ryu Young-Joon in front of the washroom?"

"Right? I saw him, too. It's crazy. He even seems handsome now that he's successful."

"I should have asked for his autograph or something."

"You're right. My colleague from Lab Two asked me to get Doctor Ryu Young-Joon's autograph if I ever run into him... I heard that his name is on the Nobel Prize waitlist."

"Excuse me! Wait!"

Song Ji-Hyun ran in front of them.

"Do you happen to know where Room 104 is? The small meeting room for visitors."

“If you go down to that corner, you’ll see a poster of someone named Doctor Ryu Young-Joon. If you look to the left from there, you’ll see the room.”

‘A poster of Ryu Young-Joon?’

They really did see a poster of him as they turned the corner in puzzlement.

[The supernova of the scientific community that Lab Six created. Ryu Young-Joon’s Special Work Seminar]

The Research Support team had put it up as ordered by Gil Hyung-Joon. They had put a huge picture of someone’s face on it and listed the schedule for the seminar. Also, someone had crossed out the word “created” and doodled below it.

[Did Korea University create Kim Yuna?][1]

[Ryu Young-Joon’s mom created Ryu Young-Joon]

“We’re going to the meeting room to meet this person right now?” Choi Yeon-Ho asked in puzzlement.

He predicted that Young-Joon would have become a huge star now that he had released an incredible paper and interview, but he didn’t expect it to be this big. Young-Joon was probably extremely busy after gaining this much fame, so didn’t the fact that he was the one who asked for this meeting about probiotics first mean that there was something to look forward to?

When the three people entered the small meeting room, they met Young-Joon.

“Hello. You’re alone?” Song Ji-Hyun asked.

“Next time, let’s have a meeting with all the department members that work on probiotics. You’ll just have a short meeting with me today.”

First, Choi Yeon-Ho, the CEO of Celligener, presented the capsule coating technology. As he went through the slides, he explained the capsule coating technology of Roche and A-Gen, and did a comparative analysis of Celligener’s technology with the others.

“... And so, we selected the strategy of using microcapsules overlaid with Alginate, a natural polymer material. If you use this to coat microorganisms

along with prebiotics that contain a few types of amino acids, it can be stored for a very long period of time,” Choi Yeon-Ho said.

“You’re packaging prebiotics in the same capsule?” Young-Joon asked.

Prebiotics generally referred to nutrients that promoted the growth and activity of intestinal microorganisms. Recently, a technology where the composition of intestinal microorganisms could be changed with specific prebiotics and without introducing new microorganisms.

‘But packaging probiotics with prebiotics in one capsule?’

“Yes. We have done that for the capsule coating technology we developed. We discovered that the viability and storage time increases greatly.”

“I see.”

It was great technology and very advanced as well. The viability of the microorganisms that were sent to the body was much higher than the capsule coating that A-Gen or Roche used.

Probiotics usually went through four steps to enter the human body.

1. The growth of microorganisms.
2. Downstream process.
3. Storage.
4. Consumption through the stomach.

The probability of a microorganism surviving the four steps and landing in the intestine was quite low, so the key to probiotic products was to increase that probability.

First of all, it was necessary to cultivate it from the beginning of the growth process with high efficiency and to highly concentrate the living cells with equipment such as a giant centrifuge. A-Gen’s probiotics team was good at this, and Choi Myung-Joon specialized in this.

And as of now, Celligener had the world’s best technology for the downstream process and storage steps.

“How much does the viability of the microorganisms introduced to the body increase compared to Roche or A-Gen?” Young-Joon asked.

“It increases by about eight percent,” Choi Yeon-Ho replied.

Young-Joon was satisfied. He smiled on the inside as eight percent was quite a significant value.

“But we have a problem,” Song Ji-Hyun spoke all of a sudden.

“A problem?” Young-Joon asked as he turned to face her.

“It’s not so much a problem... as it is a point for improvement, but I thought we should tell you this in advance if we work together.”

“What is it?”

“When the alginate hydrogel capsule is introduced, the cross-link is undone through a cation exchange reaction and dissolves. If this happens in the beginning, the viability of the microorganisms decreases greatly.”

“Hm...”

Young-Joon thought for a bit, then said, “Do you happen to have a prototype or something like that of your probiotic product?”

“Our product?” Choi Yeon-Ho asked.

“Yes.”

“Well, it’s not really a product yet, but...”

They did bring something that was packaged like a real product to appeal to Young-Joon. It was a small blue stick that looked like Lemona.[2]

“This is our product prototype.”

Choi Yeon-Ho handed him something. Young-Joon ripped the end off and examined the inside.

[Synchronization Mode: Would you like to gain insight into probiotics? Fitness consumption rate: 0.2/second]

Click.

Young-Joon pressed the synchronization button.

[Bifidobacterium lactis, Bifidobacterium bifidum, Bifidobacterium...]

This time as well, the names of the microorganisms and information about their processes appeared at once.

'It would be nice if she could give me a hint about capsule coating... Huh?'

A message popped up above Synchronization Mode.

[Rosaline's synchronization level has increased due to the frequent usage of Synchronization Mode.]

[Rosaline has leveled up.]

[The Rosaline cells in your brain are able to exchange electrical signals more systematically with the synapses in your cerebral cortex. As a result, you are able to ask Rosaline for conscious advice from now on.]

[You were able to have short conversations with Rosaline when choosing options consuming more than one fitness point, but it was limited to the explanation of the option itself. However, Advice allows Rosaline to find the information you want as the almighty presence in the microworld.]

[This option consumes a large amount of fitness as it requires Rosaline to form new neurons and multidimensional electrical signals from your cerebral cortex.]

“ ... ”

[Advice: About capsule coating. Fitness consumption rate: 2/second]

This option consumed two points of fitness per second. It was a large amount, but Young-Joon could use it. As Rosaline leveled up, Young-Joon's fitness was recovered, and the maximum amount was increased as well.

Right now, Young-Joon had 2.2 points of fitness, meaning that Rosaline could teach him about capsule coating for one second. However, this information was not explained, absorbed, and understood through communication media such as speech or text; it was the forced injection of knowledge that created

new long-term memory neurons in the brain. He would be able to absorb quite a lot of knowledge in one second.

Click.

Young-Joon pressed the [Advice] button, and powerful knowledge began coming into his head.

[Put a layer of chitosan on the inside of the alginate to create a two-layer coating.]

[Create an aqueous solution of 0.4% chitosan, remove insoluble impurities by permeating it through nylon, then add 0.1M of CaCl₂. Then follow Celligener's standard producing methods, but include a step to add the sodium alginate solution to the sterile chitosan solution. Keep at -20 degrees Celsius with the strain protectant.]

“ ... ”

As Young-Joon stared blankly at the message window, Song Ji-Hyun tapped his shoulder.

“Doctor Ryu?”

“Oh, I solved it,” Young-Joon replied. magic

“Solve what?”

“The capsule coating problem you just talked about, Doctor Song. You have to add chitosan. I'll tell you how.”

The three of them were frozen, unable to say anything. Young-Joon was now used to this atmosphere.

“Trust me and test it once.”

* * *

‘This is insane.’

Rosaline, who leveled up, didn't just help Young-Joon gain insight and find the answer, but it could generate answers that did not exist.

'Wait.'

Young-Joon, who was returning to the lab, stopped in his tracks.

Clorotonis limuvitus was also a strain that Rosaline recommended when she was still at a low level.

'Maybe I could get more information if I inspect it with Advice?'

As soon as Young-Joon returned to the lab, he waited for his fitness to recover as if he had bought a lottery ticket and was waiting for the numbers to be announced. He even injected ATP into his veins. After he had enough fitness, he gained insight into *Clorotonis limuvitus*, the microorganism strain, and gained advice.

[*Clorotonis limuvitus* is a mucus-dissolving bacteria that can live in the mucus layer of the intestines. They are more efficient than *Akkermansia muciniphila* and are excellent at settling in the intestine. However, they are less efficient in creating vesicles than *Akkermansia muciniphila*, so overexpress the following genes: ATak711, YJ2, mCAL...]

'What is she talking about? Why is *Akkermansia muciniphila* coming up?'

Akkermansia was also the name of a microorganism. It was the main focus of a paper published in *Nature* in 2013. It was a species that was excellent in preventing obesity when it was in the intestines. Furthermore, the paper stated that it had a small effect on type 2 diabetes.

[If you overexpress the genes above in *Clorotonis* and transplant it into the intestines, it is predicted that it will be one thousand times more efficient than *Akkermansia muciniphila*.]

[If this microorganism is orally administered, you can cure 74% of existing type 2 diabetes patients.]

[No more fitness remaining.]

1. Kim Yuna used to attend Korea University, and the university used her for marketing and advertising the school, saying that they created Kim Yuna. ?

2. Lemona is a packaged vitamin C powder stick. It's a skinny rectangle that contains vitamin C powder in it. ?

Chapter 33: Probiotics (3)

The pancreas secreted a substance called insulin when the sugar level in someone's blood increased after eating. It circulated the body through the blood vessels and ordered cells to digest the sugar. Then, the cells would absorb the sugar in the blood and blood sugar levels would go down as a result.

In diabetes mellitus, a state of high blood sugar continued because this system was broken. The term diabetes mellitus was derived from Latin, diabetes meaning discharge and mellitus meaning honey sweet, describing the sweet urine produced when the excess sugar in the body is excreted through urine.[1]

Type 1 diabetes was when insulin wasn't secreted even when blood sugar levels were high, and type 2 diabetes was when insulin was secreted, but certain cells around the body did not listen. It was called insulin resistance. The molecular biology of the cause of insulin resistance was yet to be discovered... Until now.

'Now I know the reason.'

Rosaline showed Young-Joon. This was related to an immune response.

The immune system was usually soldiers of the body that existed to destroy invading enemies like viruses or bacteria. But they malfunctioned in some people's bodies. Some of these immune cells had gone crazy and invaded allies like fat tissue, muscles, liver, and even the bone to cut off the insulin signal by holding a knife to the throats of cells in those tissues. This was the cause of type 2 diabetes.

Then how did intestinal microorganisms like *Clorotonis* or *Akkermansia* suppress diabetes? It was because they were not human cells, but bacteria; they were the ones that immune cells actually paid attention to. Even if the immune cells were powerful soldiers who created a coup d'etat and forcibly occupied the government, they still had to defend the country if North Korea invaded, right?

Amuc, a biomaterial that *Clorotonis* released, was an attractant that immune cells went crazy for.[2] Amuc stuck onto immune cells and controlled their activity, ultimately resulting in them no longer attacking random places to stop the insulin signal. *Clorotonis* could get the immune cells to wake up just by

hiding in the mucus layer in the intestines and releasing vesicles containing Amuc. As a result, insulin resistance was cured, and therefore type 2 diabetes as well.

“Frick, is this real...”

Young-Joon had discovered the mechanism of type 2 diabetes, one of the biggest problems in medicine in the twentieth century that no one knew the cause of. He felt like someone had hit him in the head as he had absorbed such a huge amount of shocking knowledge. Now, this wasn't just a supplement.

It wasn't that the healthcare industry wasn't important since it was clear that maintaining the health of a healthy person and preventing diseases was the best plan, but the probiotics that Young-Joon was going to develop could also cure patients on top of that.

Then was this a drug? Not necessarily, since almost all drugs had toxic side effects when taken for a long period of time. As such, it was the rule that the *patient* took it on a scheduled regimen. However, this probiotic would have no side effects even if a healthy person took it every day; it was like vitamin C.

It was normal for strains of bacteria such as *Akkermansia* or *Clorotonis* to exist in a healthy person's body; the problem was that they disappeared in type 2 diabetes patients. As such, if this was given to a normal person, it would just be excreted since there would be no free space in the intestines for the microorganisms to establish themselves, thus keeping the characteristic of healthcare.

Now, this wasn't a drug nor was it healthcare. It had an overwhelming level of efficiency that could make all the type 2 diabetes treatments in the market retire, but it was also a natural health booster that would have no side effects whether a patient or a healthy person took it every day.

'How could something like this be made?'

This was like an invasive species like the Northern snakehead or bass that would destroy the ecosystem of the type 2 diabetes drug market.

Young-Joon called Choi Myung-Joon.

—Yes, Mr. Director!

Choi Myung-Joon answered brightly.

“... I don't know where you heard it from, but I am not a director yet.

—Hahaha, you will become one soon. I knew long before this that you would succeed, Doctor Ryu. Congratulations, sir!

‘... I can see through this guy so clearly.’

It wasn't disgusting or anything, but it was funny to see that he changed completely when he was nothing but condescending before Young-Joon created iPSCs.

“Alright. Manager Choi, when do you think we will be able to get the *Clorotonis limuvitus*

that we requested from the University of Madras in India?”

—It will arrive in five days!

Choi Myung-Joon's voice was filled with energy.

‘Five days?’

Young-Joon was surprised.

The process of importing microorganisms was actually very complicated. They could not just ship it over and receive it. First of all, they had to freeze-dry it or spread it on a solid medium so that the microorganisms did not die during long-term transportation. Then, they had to submit a bunch of documents about what the microorganism was, whether it had gene variations, if it was safe or not, and a lot more to the Korea Research Institute of Bioscience & Biotechnology. They had to submit the certificate of importation, import contract, a transportation plan, a safety plan, a summary of the experiment, its use, invoices, and more.

The time the government took to process these was absolutely disgusting. The microorganisms were not able to come into the country and were stuck in airport storage units until they were approved. And although it was hard to believe, the microorganisms that were locked up for long-term storage sometimes died because they had surpassed their lifespan. That was how

long the importing of microorganisms took, but what did Choi Myung-Joon say right now?

“It’s reaching in five days?” Young-Joon asked again.

“What did you do to get it done in five days? You have to report it to the government, right?”

—Yes, that’s right. But we are one of the departments that specializes in microorganisms at A-Gen. We have reported the import of microorganisms to the government departments thousands of times. And nothing was wrong with all of them. I’m saying that we have extraordinary credibility. On top of this, since we conduct our own safety screening, our materials are processed quite quickly. Also, I asked them to prioritize this case in particular.

Choi Myung-Joon went on about the strengths of him and his department. It was like Young-Joon was interviewing him.

“Thank you. Then the processing will be quicker,” Young-Joon said.

—Of course. And since we spent the night writing the documents to report the import and submitted it already, we should be approved around the day after tomorrow. The University of Madras also said that they were going to send it on the earliest flight tomorrow. I will go and get it right away when it arrives at the airport.

“Thank you. Please contact me when it arrives.”

—Of course! I look forward to that!

Choi Myung-Joon shouted. Young-Joon hung up the phone.

Choi Myung-Joon clenched his fists in delight.

“Yes!”

It was quite funny how he was sucking up to when Young-Joon was twenty years his junior in the field, but Young-Joon was one of the few geniuses that existed in human history. It was like he was Bob Ross; Young-Joon did a couple of strokes and created induced pluripotent stem cells. That easy! Young-Joon also created optic nerves with a couple of strokes. That easy![3]

Choi Myung-Joon wondered what Young-Joon would do from now on. He knew that he had to align himself well, so he was determined to show that he was extremely useful. He felt like the first assignment Young-Joon gave to him regarding *Clorotonis limuvitus* was a success.

Ring!

Choi Myung-Joon's phone rang again.

"Yes, Mr. Director!" Choi Myung-Joon answered again with an energetic voice.

—There was something that I forgot to mention before. We have to alter the genes of *limuvitus* when they arrive.

"Alter the genes?"

—Yes. We have to increase the expression of seven genes. Could you take care of that part for me? I will give you detailed instructions for the experiment.

"Oh, of course. I will spend the night perfecting it to your liking if needed!" Choi Myung-Joon replied.

He had gotten his second mission.

* * *

The seeds that Young-Joon planted were ripening and bearing fruit. The very first one he harvested was the new flu drug, which was the first one he commissioned. The cell experiment had been completed a while ago, and now he had the data for the animal experimentation. Cell Bio had sent all their data to Young-Joon, and he had sent all of it to Patent Attorney Lee Hae-Won.

Patent Attorney Lee Hae-Won, who had just finished filing the claim for the patent evaluation, received Young-Joon's email as she was taking a break and scrolling through Instagram in her office.

[Subject: Regarding the patent application of 122 new animal drugs for pets and livestock]

Lee Hae-Won had received animal experiment data from thirty-one drugs that had been tested first out of the one hundred twenty-two drugs for thirty-four different kinds of diseases.

“No...”

Lee Hae-Won wanted to cry.

‘Doctor, I am too busy... Please...’

Lee Hae-Won was debating whether to close her office because she didn’t have enough work, but now she had too much work. She could hire someone just for the amount of work Young-Joon brought her.

“Phew. I should still do it. Where am I going to get another business partner like this?”

Young-Joon wasn’t rude, the speed at which he produced results was unmatched, and the request documents he filled out were done well as well.

Lee Hae-Won began to write the patent application for the new animal drug.

At the same time, Young-Joon was reading a report on using stem cells in clinical trials.

‘Clinical trials are coming up soon.’

After Young-Joon secured the technology to make iPSCs into optic nerves, the work to start the clinical trials was transferred to the Stem Cells Department. He collaborated with them to obtain tissues from patients and developed them into iPSCs, then optic nerve cells.

The next step was for the hospital. They had sent him a progress report of the clinical trial. Although this project was still a “joint-department project” for the Life Creation Department, the recipient of the Exceptional Performance Award, it was nothing but a formality; the actual director of this project was Young-Joon.

Flap. Flap.

Young-Joon read each page of the report carefully.

In the meantime, A-Gen wrote a clinical trial plan and submitted it for approval to the Ministry of Food and Drug Safety and the Institutional Review Board.

This project was also closely observing this project as well. Since it was the first step of the driver of future medicine, its success would be a great symbol

and be rewarded accordingly. The support of the government could increase, which would affect next year's election. Conversely, the losses would be great if it failed. As such, the Ministry of Food and Drug Safety and the Institutional Review Board examined EyeStem, a stem cell therapy that recovered a patient's optic nerves, very carefully and approved the trial at last.

Now, this project was handed over to Sunyoo University, the clinical trial investigation institution. This was who A-Gen was working with on this project.

* * *

"Soo-Young, we're going to be entering the trial now. We asked you this when we harvested your somatic cells, but we're going to ask one more time," The employee from the Ministry of Food and Drug Safety said.

"Has the trial investigator explained everything about this clinical trial?"

"Yes."

The woman who replied was in her thirties and sitting on the hospital bed. Her husband was holding her hand tightly.

"This clinical trial injects optic nerves created from induced pluripotent stem cells into your retina. Do you understand?"

"Your optic nerves may not be repaired, and considering it is stem cell therapy, there is a possibility of getting a tumor. Have you had this part explained to you?"

"Yes."

"Thank you. So, when you undergo this treatment..."

"Doctor," Son Soo-Young said. "I could sell my soul if I could see my baby's face just once."

She had already lost vision in her left eye due to macular degeneration a long time ago, and now it was time for the right eye. She had problems with this eye ever since she was in high school, and the timing of it was terrible since she was pregnant. Eye pressure usually went down with pregnancy, but it was the opposite for her. The acute glaucoma that happened with the sudden increase in eye pressure was difficult for the doctor to treat as well.

A large amount of glaucoma treatments were harmful to the fetus, and carbonic anhydrase inhibitors could cause deformities in the fetus. None of the drugs proved to be safe in clinical trials, and toxicity was reported in most of the drugs during animal experiments. Son Soo-Young had tried a laser treatment called selective laser trabeculoplasty according to the doctor's recommendation, but it was not successful. So, the doctor recommended brimonidine; its effects on the fetus hadn't been confirmed, but it was the safest option.

Son Soo-Young thought about it for a long time: her remaining vision and the baby in her stomach. When she realized she was weighing the two against each other, she refused the doctor's suggestion after a sense of shame. She was determined that she would not send anything to her fetus that could cause even the littlest bit of harm. Afterward, she fought her disease alone and gave birth to her daughter, but she still hadn't seen her face; her eyes had lost the light forever.

But the tragedy did not end there. Sometimes, someone's life could be more tragic than the main character of a soap opera.

This time, it was the baby. She had a condition called persistent pulmonary hypertension of the newborn. The hospital put her in intensive care and treated her by administering one hundred percent oxygen or injecting her with alkaline solutions to correct acidemia in the incubator. Still, she was in a dangerous situation. The doctor told her that the baby would not be able to live long with a dejected voice. magic

When she heard this news from the postpartum care room, Son Soo-Young cried more than she had in her entire life. Now, her eyes had not only lost light, but she had shed all her tears.

'It's because of me. It's because I thought about it. It's because I contemplated whether to put in the medicine or not.'

It was a false sense of guilt, but she had to turn the blame onto herself because otherwise, if no one did anything wrong and her daughter left without anyone responsible, the despair would have been too great for her to bear.

Son Soo-Young was broken, her body and mind. She had given up on everything and prepared herself. She was also ready to let her daughter go, but she had one last wish.

She pleaded to the employee, "Please, I just want to be able to see my daughter just once. Doctor, I beg you."

1. 糖尿 is Dang-Nyo, which is Hanja for diabetes. Dang is Hanja for sweet, and Nyo is Hanja for urine, directly translating to sweet urine, which refers to the excess sugar in the urine of diabetes patients. ?

2. In real life, Amuc is released by *Akkermansia muciniphila*. ?

3. This is a Korean meme that came from the time Bob Ross went on Korean TV and taught painting. The program was dubbed, and the channel translated "That easy!", which Ross used as words of encouragement, into "So easy, right?", making it seem like Ross was painting with a difficult technique and calling it easy. It became a meme that pros use to newbies when showing them something insanely difficult and making it look easy. ?

Chapter 34: Independence (1)

It was eight o'clock in the evening. Young-Joon hadn't gone home yet and was sitting in his seat in the office.

"You're not going home, Doctor Ryu?" Jung Hae-Rim, who was getting ready to go home after overtime, asked.

"I'll be leaving soon."

"You have work left? What is this? SBS Live on Youtube?"

"I'm waiting for the eight o'clock news. Since there's only five minutes left until eight, I think I'll miss it if I head home right now."

"You're waiting for the eight o'clock news?"

"Yes."

"And you're not going home from work to see that?"

"Yes."

"... People who usually like the news this much are from Manager Cheon's generation or older. I guess you're an old man on the inside. Do you watch the National Singing Contest on the weekends?"[1]

“The National Singing Contest is entertaining, okay? It’s not a program meant for the elderly.”

Doo du du.

With the opening music, the news program began on Young-Joon’s computer.

[The first clinical trial of stem cell therapy.]

“So you were waiting for this.”

Jung Hae-Rim stood behind Young-Joon and focused on the news.

“Don’t watch it.”

“Why?”

“Um...”

As Young-Joon was hesitating, the news anchor started briefing the news.

—Today, at three o’clock, the first clinical trial for optic nerve therapy derived from induced pluripotent stem cells, developed by A-Gen began. Trial patient Son lost her vision to glaucoma. A-Gen and Sunyoo Hospital created stem cells from Son’s somatic cells and differentiated them again into optic nerves to inject them into Son’s retina.

The screen changed, and an interview came up.

“Hup.”

Jung Hae-Rim smiled and covered her mouth. It was because Young-Joon came up on the screen.

[A-Gen Scientist Ryu Young-Joon.]

[The inventor of induced pluripotent stem cells.]

Watching the subtitles below and his awkward face on screen, Young-Joon buried his face into his hands.

The Young-Joon on the screen began speaking.

—We have already succeeded in recovering the retina and optic nerves of retinal degenerative mice by using induced pluripotent stem cells to create them. Personally, I predict that the clinical trials will have great results.

“Wow! You’re good,” Jung Hae-Rim exclaimed.

Young-Joon stood up from his seat with ears red from embarrassment.

“I can’t watch it because I’m so embarrassed. You can go now since it’s done.”

“Why are you embarrassed? But you should have gotten a haircut before you did the interview.”

“I had no time to go to the barbershop.”

“Those are the interviews that you’ve been doing.”

“There’s that one and another one from another channel. There was one from a newspaper and one from BRIC/[2]

“They’re not asking anymore?”

“They keep asking me a couple of times a day, but I’m rejecting them. It’s too pressuring.”

Young-Joon wasn’t very talented at this sort of thing. He was better off fighting Kim Hyun-Taek or Ji Kwang-Man. He didn’t know how to react when people exclaimed that he was a genius in interviews.

* * *

It had been four days, but Son Soo-Young, the first trial patient, hadn’t recovered her vision yet. Everything was still dark.

“I guess it doesn't work very well.”

She smiled bitterly. Even though the treatment failed, she was grateful to everyone since several people had fought to help her regain her vision.

“It’s okay. It’s okay.”

Her husband patted her on the back.

“What about Blue?” Son Soo-Young asked.

That was the baby’s nickname.

“She’s alright. She’s holding out. Doctor Hong said that we should try whatever we can to hold onto her. He said that we don’t know when her last day will be, but the parents can’t give up first.”

“Yeah...”

Son Soo-Young buried her face in her husband’s chest.

“It will be fine. Touch her with your fingertips. I’ll help you.”

There were countless needles and tape on the really small-sized baby. Even her father, who could see clearly, had to be extremely careful when touching her, so it was much harder for Son Soo-Young. She hadn’t seen her daughter yet, and all she had touched was the tips of her toes. But now that she failed at recovering her vision, there was no way.

Her husband hugged her close, stroking her hair.

Son Soo-Young said, “It must be hard for you too. Me and Blue are both tormenting you.”

“I’m steeping in it.”

Son Soo-Young chuckled.

“I’ll turn off the lights. Let’s go to bed.”

It was the moment he let go of her.

“Huh?”

Son Soo-Young suddenly raised her head.

“What’s wrong?”

“...Come back here. Stand in front of me again.”

Son Soo-Young called her husband over again and buried her face in his chest. Then, she lifted her face and stared at the ceiling.

“It got brighter.”

“What did?”

“My eyes... It’s brighter now than when I had my face in your chest.”

Son Soo-Young gulped.

“I can feel the lights.”

107 hours after the procedure, the optic nerves began establishing themselves as the retinal tissue healed. Although it was very weak, Son Soo-Young’s eyes were able to distinguish light.

Afterward, her eyesight improved by the day. After a week, she could detect something moving in front of her eyes. She could see the faint movement of light. On the tenth day, the light focused on the retina became an object she could recognize.

“Okay, open your eyes,” Her husband said. He put something near her foot.

“Can you tell what it is?”

“...A phone?”

“...”

“Did I get it wrong?”

“...No, you’re right.”

Son Soo-Young could see her husband hugging her. It seemed like he was letting out tears that he had suppressed for a long period of time from how he was shaking.

‘Not steeping.’

The light on the retina became clearer as time passed. Her vision was recovering quite quickly as the optic nerves were recovered since her optic cells did not have much damage in the first place. Although the resolution was low and they would have to observe her progress, they could have a report on the clinical trial.

Sung Yo-Han, the primary doctor of the clinical trial at Sunyoo Hospital submitted a report to the Ministry of Food and Drug Safety, the Institutional Review Board, and A-Gen.

“It was successful.”

It was shocking. Even though Sung Yo-Han did this procedure with the optic nerves A-Gen created for him himself, he was doubtful.

Blindness caused by glaucoma was incurable. Blindness could be prevented if it was taken care of during the early stages, but it was impossible to cure someone who was already blind.

But not anymore. Medicine had found a solution. The results some genius scientist made brought light to a patient’s eyes.

Sung Yo-Han could feel that he was in the midst of the advancement of human medicine.

“Thank you. Thank you so much.”

Sung Yo-Han didn’t believe in a religion, but he offered a prayer of gratitude to someone.

The next morning, every news channel and newspaper came out with a provocatively titled report.

[Success in clinical trials using optic nerves derived from induced pluripotent stem cells]

[Plans created to add five additional glaucoma patients to clinical trials]

[Glaucoma-caused blindness now curable]

[A-Gen, developer of glaucoma cure]

[A-Gen stocks reach a high along with the pharmaceutical industry. Analysis of the stem cell concept]

[How are stem cells changing the future of medicine?]

[The advancement of medicine created by a thirty-year-old scientist]

[Ryu Young Joon: the scientist who conquered glaucoma]

* * *

As Young-Joon was heading to Lab Six for work, he received a call from Park Dong-Hyun.

—Young-Joon! Where are you right now?

“I’m almost at the entrance. I’m getting off the bus now.”

—You can’t come in through the main entrance! No!

“Pardon?”

—There are reporters lined up there, waiting for an interview. Soon-Yeol and Hae-Rim are stuck there right now.

“Why are Soon-Yeol-sunbae and Hae-Rim-sunbae stuck there?”

—I think they are asking about what kind of person you are because they know that they are in the same department as you... Anyway, don’t come in through the main entrance!

“I’m already at the main entrance. I got off the bus right now. How many reporters can there be...”

“It’s Ryu Young-Joon!”

Someone screamed from the entrance of the lab. Then, about thirty reporters with cameras and microphones began running over to him. Startled, Young-Joon almost ran the other way.

“Doctor Ryu! This is Yoo Su-Min from the Chosun Ilbo[3]. I heard that you...”

“Doctor Ryu! Sunyoo Hospital has stated that they have successfully treated patients with optic nerve cells derived from induced pluripotent stem cells in clinical trials! Did you know that?”

“How do you feel as the first person who developed a treatment for glaucoma?”

“Do you think this can be recreated in other patients?”

“What do you think the profits will be for this technology?”

“Did you know that A-Gen stocks have reached an all-time high today?”

“Can induced pluripotent stem cells be used to create other nerve cells?”

“What do you predict for the future of stem cell therapy?”

Cameras flashed from all over and microphones flew into his face from every direction.

“Oh...”

Young-Joon did consider the possibility that reporters would come to cover this story after he received the email saying that the clinical trial had succeeded.

‘But I didn’t think it would be this huge...’

Since he already said everything in his interview with *Science* and CNN and since a lot of reporters had come by and already covered the story, Young-Joon didn’t think it would be that crazy this time. He just thought a few reporters would call him to request an interview and politicians would ask to have a meal together sometime.

Even though *Science* was the world’s best journal, it was still a journal; the people who read it were usually limited to scientists. Even if CNN did a huge broadcast about stem cell therapy and its vision, it was still just a possibility.

To the public, science depended on results. No matter how much scientists talked about the bright potential of something and its surprising mechanism, the public didn’t really care at all. To them, the middle part wasn’t necessary; the only thing that was important was whether someone was cured or not.

That was why Young-Joon thought that the Korean news reporters who came to see him after the CNN broadcast were probably just here to cover another boring story. He didn’t expect this to be this huge. But now that he thought of it, those reporters were lucky since they could reuse their article because they already had an interview.

“Wait!”

“Please move!”

Suddenly, a few men wearing black suits came running through the reporters and reached him. Young-Joon thought they were A-Gen's security guards, but they weren't. He looked carefully, but he didn't see the symbol for ATCaps, the security firm, on their chest.

The men protected Young-Joon and got him out of the crowd of reporters.

"Let's go, Doctor Ryu. We will escort you to the lab."

"Who are you?"

"We will explain along the way."

Young-Joon was a little flustered, but he followed them since they were heading in the direction of Lab Six. He was going to work anyway. As he got closer, he could see the ATCaps guards on edge.

'They are going to have a long day today.'

* * *

The people who dug Young-Joon out of the crowd of reporters were the security guards of Congressman Shim Sung-Yeol.

Even Young-Joon, who wasn't interested in politics any more than the average person, knew who Shim Sung-Yeol was. He was the former leader of the ruling party, and he was also the next presidential candidate. He was in the office of the director of Lab Six, Gil Hyung-Joon.

"Oh, our national hero, Doctor Ryu. You're here!"

Shim Sung-Yeol put on a greasy smile and walked toward Young-Joon with wide arms. He lightly hugged him and said to Gil Hyung-Joon, "You must feel so assured having such a great scientist like him, Director!"

Gil Hyung-Joon's expression soured instantly, as if he just chewed a bug or something.

"Yes... So assured..." Gil Hyung-Joon said with his teeth clenched.

"Director, Doctor Ryu. How about this? I think it will be good for all of us to go to the hospital and visit the patient. Get a picture, too. It looks good, right? The government supported A-Gen a lot all this time, right? The congressman of

the ruling party, Doctor Ryu, the project manager, Director Gil, and the patient all in one picture...”

Shim Sung-Yeol made the shape of a camera with his hands and laughed.

“If we do that, other scientists will also trust the government more and be more motivated, right? Doctor Ryu, you will become the greatest star scientist of this government. You can get famous and become the lab director. Director Gil can become the CTO. Hahaha!”

“Haha... Great. Yes, let’s go,” Gil Hyung-Joon replied as he snuck a glance at Young-Joon.

“I should get back to my experiments,” Young-Joon said firmly.

Gil Hyung-Joon’s expression soured even more.

“Hahaha!” Shim Sung-Yeol laughed out loud.

“Experiments? Of course. Our national hero is full of passion. But surely, you can take a day off, right? The smarter you are, the more important it is to get fresh air and rest. Isn’t that right, Director?” Shim Sung-Yeol asked as he stared at Gil Hyung-Joon.

Sighing on the inside, Gil Hyung-Joon wrapped his arm around Young-Joon’s shoulders. He pulled him over to one side and whispered into his ear.

“Hey, Doctor Ryu, are you that slow? He’s the next presidential candidate. Suck up a little. That way, we can get more government funding and it will be easier to get approval for clinical trials when you do something with stem cells in the future...”

That was when Young-Joon pushed Gil Hyung-Joon away and stared right at Shim Sung-Yeol.

“Congressman, scientists and politics must be independent of each other. I do not like scientists who go out to drink and play golf to get funding instead of researching and reading papers. I dislike becoming the face of the government as a science hero even more. Science is the study of objectivity and proof, and it must be an independent field that one can only prove themselves through papers.” magic

“Fuck...” Gil Hyung-Joon whispered under his breath behind Young-Joon.

Young-Joon added, “I do not want any other kinds of power to be mixed with my research. I had many other politicians request meetings, but I have declined all of them. I ask you to please not use my findings for politics.”

Gil Hyung-Joon cracked open the ice-cold water bottle he got from the fridge and gulped it down.

1. The National Singing Contest is a TV program that has been going on since 1980. It is usually watched by the older generation. ?
2. BRIC stands for Biological Research Information Center, and it is a collection of biology discoveries. It is based in Korea. ?
3. The Chosun Ilbo is the oldest daily newspaper in the country. ?

Chapter 35: Independence (2)

How did Archimedes, the greatest mathematician before Isaac Newton die? It was when Roman soldiers took over Syracuse, the city he lived in, and invaded his home. As the soldiers stepped on the shape he drew, he told them not to touch it. Of course, the soldiers who could barely do addition and subtraction did not know the value of his work. And so, they stabbed him to death as the soldiers didn't like how a citizen of a defeated country was telling them what to do.

The situation Gil Hyung-Joon was looking at felt similar to that. It was clear that Young-Joon was as slow as Archimedes was, but what about Shim Sung-Yeol?

After some tension...

“Ha. Hahaha!”

Suddenly, Shim Sung-Yeol burst out in laughter. This old, snake-like politician had already finished calculating this in his head.

“I have made a mistake, Doctor Ryu. Since I'm getting older nowadays, I guess I was a little nervous that I would have less influence in the party. Forgive me.”

Shim Sung-Yeol bowed to Young-Joon and apologized.

Shim Sung-Yeol saw right through Young-Joon's character. He was a powerful incarnation of research ethics itself, and the fruit of pure science who did not compromise with any kind of power. If Young-Joon was a person like this, he would not hold hands with other politicians either, meaning that Shim Sung-Yeol's competitors would not be able to use Young-Joon easily. Then, he didn't have to be anxious right now, nor did he have to be angry. He just had to back off once, play the character that fit his values and win his favor. Young-Joon was a scientist who would gain more and more influence. If he left a good first impression, it would help him in the future.

"Of course, science and politics should be separate. I do not have the slightest intention to use your findings from research politically or anything like that. But I just wanted to support an outstanding scientist like you as a politician and out of patriotism," Shim Sung-Yeol said.

"..."

"Isn't that what scientific technology is? Do we have oil? No, we don't. All that our country has to live off of is people's brains. Hahaha. Don't you think that you earned us thirty years of food to live off of? That's why I wanted to support you with what I could, and I think that's why I misspoke and called you a star scientist. I'm sorry."

Shim Sung-Yeol tapped Young-Joon's shoulder.

"If you don't want to, you don't have to face the media or do anything like that. Don't feel pressured; do the research you want, and please just let me know if you need anything. I will do everything in my power to support you fully."

Shim Sung-Yeol put his business card in Young-Joon's hand.

"But even if you don't go with us, you should still go to see the patient, right? Since you know best about this project, the patient probably has a lot of questions for you as well."

"Yes, of course."

Young-Joon already had plans to go visit the patient, but how could he go all of a sudden when he was receiving the nation's attention? It could be unmannerly of him.

"I will go separately," Young-Joon replied.

“Then since I already had plans to go right now, you can go after I leave when it gets quiet,” Shim Sung-Yeol said.

* * *

Son Soo-Young, the first cured glaucoma patient, received as many interview requests as the amount of spotlight Young-Joon received. But she had declined most of them. Even though the good news that glaucoma was conquered gave hope and encouraged everyone working in medicine and pharmaceuticals, she was not that happy since what she could see with those historic eyes was her dying daughter.

She thought that she would even sell her soul for a chance to see her daughter just once, but now that she had been cured, she became greedier. She wondered how humans could be so selfish.

Every day during visiting hours, Son Soo-Young stood beside her baby and watched her small daughter, whom she felt looked even smaller than the size of her open palm, just calling her name. She wanted to see as much of her dying daughter with her recovering eyes.

But she couldn't see her daughter as much during visiting hours because some big-time politician named Shim Sung-Yeol appeared at the hospital.

“Our doctors, thank you for your hard work. Where is Madam Son Soo-Young right now?”

“She is in the newborn intensive care unit...” Sung Yo-Han, the doctor in charge of the clinical trials, answered him.

“Why is she at the newborn intensive care unit?”

“She had a baby recently, and her daughter is not well.”

“Oh no. It hasn't been long since she recovered from glaucoma, but now her child is sick... How unfortunate. *Tsk tsk.*” Shim Sung-Yeol clicked his tongue.

“It's unfortunate, really. Visiting hours end at twelve-thirty, so you can meet Madam Soo-Young after then. There's twenty minutes left,” Sung Yo-Han said.

“Hm.”

Shim Sung-Yeol glanced at his watch and said, "We don't really have time right now. Could we go there?"

"I'm sorry, but not everyone can go into the newborn intensive care unit."

"Really? Hm."

Shim Sung-Yeol changed his mind. This was his chance to put his face on the good news that glaucoma was cured. He didn't have to add the story of a baby in critical condition and create negative energy.

"Then could you call Madam Soo-Young for a moment? Can't she visit next time?"

"..."

As Sung Yo-Han hesitated, not knowing what to do, Shim Sung-Yeol hurried him.

"Please call her now. We have to see her and then go."

As Sung Yo-Han was contemplating, Professor Lee Jun-Hyuk, the hospital director, showed up behind him. He hurried over to where they were standing and greeted Shim Sung-Yeol.

"Congressman! When did you arrive? You should have contacted me..."

"Haha, it's alright. I didn't want to call on someone so busy like you. But the reason I am here is because I wanted to meet the patient who was cured of glaucoma."

"Yes, I heard. Doctor Sung, where is the patient?" Lee Jun-Hyuk asked Sung Yo-Han.

"She is at the newborn intensive care unit."

"Really? Then hurry up and get her."

"...Yes, of course," Sung Yo-Han answered helplessly.

He walked away from the hospital director and Shim Sung-Yeol and went to the newborn intensive care unit.

Son Soo-Young was touching the tip of her daughter's toes and just stared at her as she breathed.

"Madam Soo-Young. Um... You have a visitor," Sung Yo-Han said with a look of shame.

"I said I'm not meeting anyone during visiting hours."

"Yes, I know. But..." Sung Yo-Han hesitated.

"Who is it?"

"It's a congressman named Shim Sung-Yeol. The hospital director asked for you to step out..."

"*Sigh...* Alright. Let's go."

Son Soo-Young got up from her seat. She could not refuse after seeing how much of a predicament he looked like he was in.

A moment later, Shim Sung-Yeol took the hospital director and Son Soo-Young to her room. They took pictures with her sitting on the bed and Shim Sung-Yeol and the hospital director standing behind her and smiling.

They took several pictures from several angles and the time passed by fast as Shim Sung-Yeol gave a short speech and showed showmanship in front of reporters.

Now, it was past visiting hours.

After the photoshoot ended, Shim Sung-Yeol, the hospital director, and the reporters all scattered to get lunch.

It was now 6 PM: the second visiting hour.

Son Soo-Young, who already had dinner, went over to the hospital entrance to wait until the visiting hours started. Then, she ran into someone who was talking with Sung Yo-Han in the hallway.

"Oh! You're here."

Sung Yo-Han welcomed Son Soo-Young and introduced her to the man.
magic

“Doctor Ryu, this is Son Soo-Young.”

“Doctor Ryu?”

Son Soo-Young’s eyes widened. She had also heard about him since it was quite a big deal.

This time, Son Soo-Young was also sincerely happy to see him. This was the only time she was positive about someone visiting her after her vision improved.

Son Soo-Young grabbed Young-Joon’s hands.

“Doctor, thank you. Thank you so much.”

Son Soo-Young thanked him again and again.

“Thanks to you, I am able to see again.”

“Haha, you should be thanking the doctors here. The one who carried out the procedure is him.”

Surprised, Sung Yo-Han shook his hand.

“What are you talking about! No! The stem cell optic nerves you made did everything.”

“Both of you are my saviors,” Son Soo-Young said.

“Thanks to that, I get to see my daughter every day.”

“That’s a relief. If your progression is similar to the pre-trial data, your vision should keep increasing. After a month or so, your vision should be similar to what it was before glaucoma,” Young-Joon said.

“Thank you.”

“You can go on a nice trip with your daughter once you get discharged.”

“Haha...” Son Soo-Young laughed bitterly.

“That would be great if I could, but my daughter is not well...”

“She’s not well?”

“She’s in the newborn intensive care unit,” Sung Yo-Han said.

“How is she sick?”

Sung Yo-Han was not the doctor in charge of the baby, but he had come to know about her daughter in quite some detail while treating Son Soo-Young.

“She has persistent pulmonary hypertension of the newborn.”

“... I see.”

As Young-Joon looked dejected, Son Soo-Young tried to smile.

“It’s alright. I am satisfied with being able to see my daughter’s face. Thank you, Doctor. I should get going. It’s almost the start of visiting hours.”

As she left, Young-Joon asked Sung Yo-Han, “Could I meet the doctor in charge?”

* * *

The doctor who was in charge of Son Soo-Young’s daughter was at the newborn intensive care unit. Young-Joon went to the room to see them, but he waited outside since he wasn’t allowed inside because of restrictions. They were quite far away, but Young-Joon could see Son Soo-Young and her daughter along with a bunch of message windows.

[Synchronization Mode: Would you like to analyze persistent pulmonary hypertension of the newborn? Fitness consumption rate: 0.4/second]

Click.

Young-Joon pressed the button.

Persistent pulmonary hypertension of the newborn was when the pulmonary blood vessels contracted abnormally. When the baby came out of the womb and started to breathe on their own, their pulmonary blood vessels should naturally relax and transport oxygen. But in some cases, their blood vessels remained contracted like they did in the womb for a few reasons. Obviously, if the blood vessels were contracted, there would be less space in the vessel,

therefore resulting in lower amounts of blood flow and high blood pressure. That was why it was called pulmonary hypertension.

The biggest problem was the lack of oxygen due to the decrease in blood flow. The baby could die because the blood was not able to transport enough oxygen.

Usually, it was treated by injecting nitric oxide and increasing blood oxygen concentration. The rate of success? It was only about seventy percent, which was low because it meant that about three out of ten treated infants died.

“Hello.”

A strict-looking doctor in their thirties appeared. She crossed her arms and introduced herself to Young-Joon.

“My name is Hong Ju-Hee, and I am taking care of Blue. You wanted to see me?”

“Yes,” Young-Joon replied.

“I heard that the baby is suffering from persistent pulmonary hypertension of the newborn. Are you treating her with nitric oxide?”

“ ... ”

“How is the prognosis?”

“I cannot discuss patient information. Normally, I shouldn’t even be outside at this time. But I know how much hope you have given the mother, so I came here out of gratitude. But that is all I can do. I cannot discuss patient information.”

“Just tell me one thing. Did the nitric oxide treatment succeed?”

Without answering, Hong Ju-Hee chewed on her lip and thought about what kind of person Young-Joon was. The impact he had on this hospital was a huge issue in the hospital. They were all doctors; everyone knew how amazing the things Young-Joon made were, and she had an even greater appreciation for it since she saw Son Soo-Young every day as she regained her vision.

Son Soo-Young came to every visiting hour on the dot and kept her daughter's side with her recovering eyes because she wanted to see her daughter a little bit more and for longer. That sight, which Hong Ju-Hee witnessed twice a day as she took care of the babies in the intensive care unit, made her heart cry every time.

"It failed... The nitric oxide treatment failed," Hong Ju-Hee replied dejectedly.

"Then what are you going to do now?"

"There is nothing we can do..." Hong Ju-Hee replied with her teeth clenched. Her eyes were red.

"Doctor Hong," Young-Joon called.

"There is a substance called prostaglandin in one of the metabolites of arachidonic acid, which is primarily produced by the vascular endothelial cells. It is procured when cyclooxygenase acts on arachidonic acid. It is usually released when the body has high blood pressure and low blood flow; it sends a signal to the prostaglandin receptor connected to a G-protein to expand the blood vessels and lower blood pressure."

"... Pardon?"

Hong Ju-Hee looked bewildered.

'What is he talking about?'

Young-Joon added, "Veratex, a treatment for high blood pressure, is a biosynthetic drug that perfectly mimics the structure of prostaglandin. Velross, the pharmaceutical company, developed it by taking on a little bit of a loss."

"... You're saying that we should administer Veratex?"

"I know what you are worried about. The drug hasn't been tested on infants yet. From what I know, it has only been used on a five-year-old child and that's the clinical data of the youngest patient. If you administer Veratex to that baby, that becomes the first case of the clinical trial. That's too much pressure, right?"

"..."

“But the nitric oxide you are using on that baby has become regular treatment because someone made the first case.”

“ ... ”

“I’m not a doctor, but as a scientist who works in pharmaceuticals, there is no drug safer than Veratex. Since it is a natural product that has exactly the same structure as something that should naturally occur in an infant’s body, there should be no side effects.”

Hong Ju-Hee was lost in thought for a moment. Young-Joon was right; it was way too much pressure for her to be the first person to try a drug that hadn’t been tested on an infant ever. If she was a bold and forward doctor, she could have actively encouraged the mother to use experimental treatments, but Hong Ju-Hee did not think she could do that.

But Son Soo-Young’s face, which made the hearts of the people who saw her every day in the intensive care unit ache, her eyes, which were starting to see the light, and the baby, who was holding onto her miraculous life... She could not get the image of those two out of her head even when she was eating bread she got from the convenience store for dinner, having a catnap on her chair, or when she opened her eyes on her bed on her day off, which she almost never got. She thought that maybe she would never forget them even when this was all over.

‘I was the one who said that the parents can’t get tired first, but maybe the person who was tired...’

Hong Ju-Hee bit her lower lip.

“You must have fought for her to live as well,” Young-Joon said.

“ ... ”

“I have heard about it as well. What the newborn intensive care unit is like. You probably never get more than five hours of sleep every day. You only go home twice a week, and you probably do that after barely finishing your work. The mother probably knows that, and she will thank you, even if the baby dies.”

“ ... ”

“But are you satisfied with that result, Doctor Hong?”

A teardrop rolled down Hong Ju-Hee’s face. She had been keeping it in for a long time.

The babies, whom she took care of for months and even a year, sometimes felt like her own children. They were taken care of by her more after birth than their actual mothers.

“How... How could I be okay with that? The baby I took care of...will die...” Hong Ju-Hee said as she wiped her eyes with her hands. Young-Joon calmly nodded his head.

“Then, please just have a little courage. Veratex is a good possibility. Please convince the mother and ask her to try just once more as the last shot. We can’t let her go like that, right?”

Chapter 36: Independence (3)

Son Soo-Young and her husband were having a serious conversation together.

“An experimental treatment...?”

Son Soo-Young became a little depressed.

“We have to consider that the nitric oxide treatment has failed. She keeps getting more resistant. We’re reaching a limit.”

“...”

“There’s a new drug called Veratex. It’s a drug derived from natural products, and it can expand the blood vessels to decrease blood pressure. The risk will be low since it is a very safe drug.”

“But that’s just the prediction, right?” Son Soo-Young’s husband asked.

“Yes. There’s no record of it being given to an infant, only on a five-year-old child. It was successful then.”

“Five-years-old... That’s a lot more than our little girl...” Son Soo-Young said in a depressed voice.

“But since it’s a substance that is naturally produced by the infant’s body...”

“Doctor.” Son Soo-Young held her husband’s hand tightly and barely spoke as if it was difficult for her to say this.

“From a long time ago, I wondered whether I was holding onto our daughter because of my greediness and making her suffer for a long time.”

“ ... ”

“Maybe it’s time for us to let her go. I don’t want to torture her anymore.”

Son Soo-Young bowed toward Hong Ju-Hee.

“I am sincerely grateful to you, Doctor, for looking after our daughter...”

“That’s what I thought, too,” Hong Ju-Hee replied.

“It’s a shame to admit it myself, but even I thought that there was no hope now. But yesterday, Doctor Ryu Young-Joon came to me.”

“Doctor Ryu Young-Joon?”

Son Soo-Young’s eyes widened. Hong Ju-Hee could see a little bit of hope bloom on her face.

It was normal for Hong Ju-Hee, who had treated newborns for a long time, to know a lot more about persistent pulmonary hypertension than Young-Joon, who was only a pharmaceutical scientist. There was no way that Young-Joon could solve something that Hong Ju-Hee couldn’t.

However, Son Soo-Young was an ordinary office worker who didn’t know much about medicine or pharmaceuticals, and to her, Young-Joon was more than just some doctor or scientist. After receiving stem cell therapy, she could feel her vision returning by the second, and that was truly astonishing. Since everyone praised that great achievement, she was even more convinced.

Maybe... If it was Young-Joon, maybe he could do something.

Now, Son Soo-Young’s eyes shone with hope. She was hoping that the person who proposed they use Veratex was Young-Joon.

“Doctor Ryu recommended it,” Hong Ju-Hee said.

“And I chose that drug as a doctor. Veratex is the safest drug for high blood pressure that is allowed to be sold.”

“Then...”

“Let’s try to do everything we can. Blue held up until now, right?”

* * *

After contemplating long and hard, Young-Joon had decided on the next target for iPSCs to be used.

‘Alzheimer’s.’

He had chosen it among the eight possible choices. He thought a lot about arthritis and spine damage, but he chose Alzheimer’s. magic

A lot of people confused dementia with Alzheimer’s, but they were subtly different. Dementia included symptoms such as not being able to recognize people and objects or having problems with memory, and one of the causes of this was Alzheimer’s. The former was the symptom, and the latter was the disease.

For example, dementia was like having a runny nose and coughing, and Alzheimer’s was like the flu. Similar to how having a runny nose and coughing could also be symptoms of a cold, it could not be Alzheimer’s even if someone showed signs of dementia; there were things such as vascular dementia or senile dementia. But Alzheimer’s disease was a serious and severe illness since half of dementia patients had it.

Then, what was Alzheimer’s exactly? Alzheimer’s was when a substance called beta-amyloid accumulated in the cell and induced nerve cell death by causing neurotoxicity. Dementia symptoms would begin as the nerve cells died.

The new drugs that Pfizer and several other pharmaceutical companies developed and were developing broke down beta-amyloid, therefore slowing the progression of and preventing Alzheimer’s. However, it was unable to recover the nerve cells already destroyed by the beta-amyloid protein. This meant that it could stop the progression of Alzheimer’s, but wouldn’t be able to fix dementia if it had already begun. Conversely, one could cure Alzheimer’s and treat dementia symptoms if those nerve cells were revived.

Even people who did not study biology would be able to predict how difficult this would be; there was no need to explain it. Even if Young-Joon made iPSCs and broke the closed doors to stem cell regenerative medicine, they had a lot more mountains to climb ahead.

First of all, the method to differentiate iPSCs into brain nerve cells; it was something that ordinary scientists would study for ten years, but let's just say that Young-Joon somehow did it. There was a difference between being able to produce it and mass-producing it. Since there were about one hundred billion nerve cells in the brain, they would have to fill in a billion nerve cells even if just one percent of brain cells were damaged. Since some of the ones that the doctor put in would not establish themselves and die, the actual amount that would need to be injected would be more than a billion.

Let's assume that Young-Joon was able to solve that problem by inventing a miraculous way of growing cells. When he was curing glaucoma, he had to inject the optic nerve cells into the retina. Then, would he have to use the same method with nerve cells? Should he cut open the patient's skull with a saw, check the necrotized region, pierce it with a needle and inject new nerve cells into it?

Young-Joon had to consider the fact that most Alzheimer's patients were over sixty. It was difficult for an elderly patient with a significant lack of physical strength and recovery speed to endure such a stressful operation.

For ordinary scientists who weren't Rosaline, treating Alzheimer's with stem cells was probably as difficult as terraforming Mars. As such, Young-Joon had to take a different route with this Alzheimer's cure. Rosaline told him the way to do that.

[Advice: About the differentiation of stem cells in tissue. Fitness consumption rate: 2/second.]

[Advice: About the mass production of stem cells. Fitness consumption rate: 2.3/second.]

[Advice: About the injection of stem cells into the veins. Fitness consumption rate: 1.8/second.]

'The consumption rate! Are you serious?'

"Doctor Ryu!" Park Dong-Hyun shouted as he ran out of the lab.

“Yes?”

“The stuff you ordered from Sigma-Aldrich came.”

“Oh, yes, thank you.”

“But why did you order ATP in bulk? I saw that you spent like three million won.”

“There’s just something I want to try, personally.”

Young-Joon made up an excuse and went out to the hallway. The salesperson was writing something on his notepad with the two large ice boxes of ATP on the ground.

“Hello.”

As Young-Joon greeted him, his face lit up.

“Hello! Doctor Ryu, this is the ATP you ordered. This is the statement.”

“This isn’t going to be paid with the budget because I’m buying it out of my own pocket. Could I pay by card?”

Young-Joon pulled out his card.

“You’re getting it on your own?”

“Yes.”

“Alright.”

The salesperson looked a little puzzled, but he gave Young-Joon the card reader.

As Young-Joon purchased it and was about to bring the materials in, the salesperson reached out to Young-Joon with a notepad.

“Um, Doctor Ryu.”

“Yes?”

“Could I get an autograph?”

“ ”
...

“I also did my master's in biology. I'm in sales now, but I did research as well. I'm a fan.”

The salesperson smiled like he was embarrassed.

* * *

Young-Joon's reputation changed every day after he came to Lab Six, but this upward trend was way too steep.

In the beginning, no one even knew who he was when he went down to the cafeteria for lunch. After the year-end seminar, they began to steal glances at him, and after the publication in *Science*, they began coming up to him and asking for meetings and collaborations.

But after that, he succeeded in his clinical trials, raised the company stocks to an all-time high, and swept the news and papers.

Now, Young-Joon saw that all the scientists became silent when he came down to the cafeteria. And they began to whisper among each other from afar as if they were seeing something amazing.

'I don't think I'll ever get used to this...'

Honestly, it was burdening and uncomfortable. He wished that they would just not care.

“It's happening since you're in stardom now. You can't help it,” Cheon Ji-Myung said as they had lunch.

“But I think it would be uncomfortable, Doctor Ryu. To be honest, even I'm just uncomfortable watching you,” Jung Hae-Rim said.

“It will be okay when you become a director since you won't come to the cafeteria often,” Park Dong-Hyun said.

Usually, directors met up with one another and had lunch outside rather than using the cafeteria.

“Doctor Ryu can have lunch with Gil Hyung-Joon,” Cheon Ji-Myung said while smirking.

“Eek. I can’t stomach food when I’m with people who make me uncomfortable.”

“I think Gil Hyung-Joon will be the one who will get indigestion if he has a meal with Doctor Ryu.”

Park Dong-Hyun imitated Young-Joon, “Director! It’s against meal ethics to pour sauce on a shared tangsuyuk without permission![1] Since we each paid half for this tangsuyuk, you only have half the shares. Take your half and pour sauce on it; I will take the other half and dip it. And let’s draw up a contract to take turns choosing the restaurants from now on!”

“Pfft!”

Jung Hae-Rim spat out a little bit of water.

“Is my image that bad?”

Young-Joon’s ears were flushed.

“You’re kind of like an incarnation of research ethics from hell...” Koh Soon-Yeol said while propping up his glasses.

“But Doctor Ryu, when are you becoming a director?”

“It will come up during the next shareholders meeting,” Young-Joon replied.

“Oh my. So only a week left?”

Bae Sun-Mi’s eyes widened.

“It pains me that we only have a week left to see you, Doctor Ryu, since you’ll get your individual office and move there,” Cheon Ji-Myung feigned a cry.

“About that...” Young-Joon began. “If I was to create a company, what would you think about working with me?”

“Starting your own company?”

Cheon Ji-Myung tilted his head in confusion.

“I thought you were going to be the CEO of A-Gen? And be the largest shareholder as well?”

“Yes, of course. That goal hasn’t changed. And since it will be difficult to do any follow-up knowledge on stem cells if I leave A-Gen’s infrastructures, I will have to stay here.”

“Then what are you talking about? Starting your own company?” Park Dong-Hyun asked.

“The optic cell treatment has been successful in clinical trials, and we are getting investments from all over. The board is probably going to try to make the investments as big as possible.”

“Hm.”

“I thought of an item that will be that big. If I succeed in this, it will have such a huge impact that it will make glaucoma seem like it was nothing.”

“I’m scared already about what kind of crazy idea you will propose and start it.” Park Dong-Hyun’s face was filled with excitement.

“I am going to cure Alzheimer’s.”

“...”

There was nothing but silence around the table.

“If that happens, it’s no longer something that can exist only as a department. Then, two huge pipelines that are connected to iPSCs will be made. And among that, an Alzheimer’s cure is as valuable as a mid-size company.”

“You’re right. If it’s Alzheimer’s, it will be that big.”

Cheon Ji-Myung nodded his head.

“But the problem will be that one director will own all of that. For the company, they will be happy, but in a predicament at the same time since I will get too much power. There will be people who are going to try to use me to keep CEO Yoon Dae-Sung in check, which will make him uncomfortable with me.”

“You’re saying that there might be a division in the board?”

“Yes. I’m going to use that to make A-Gen into a group, and I’m going to propose that we create an affiliate company. Something that will pay a set

price and use all of A-Gen's infrastructure. And I will be the owner and CEO of that place."

"Hah... It's too unrealistic. Do you think that it will be easy? It's a different story if the company was a subsidiary, but places like affiliates that have no governance and share-division structure are usually made by royal families who are connected by blood..." Cheon Ji-Myung said while stroking his chin.

Young-Joon smiled.

"I have a few things I've planned."

1. Tangsuyuk is a Korean-Chinese dish that has pork strips and comes with a sweet and sour sauce. Some people like dipping the sauce to keep it crunchy and some people like pouring the sauce on it. ?

Chapter 37: Independence (4)

A-Gen management was preparing to hand over the management rights. CEO Yoon Dae-Sung had long considered how to hand over the management rights and the huge assets to his son Yoon Bo-Hyun.

Normally, there were three procedures that were followed by the head family of a large company.

First of all, they would start their own child company. When doing this, they would make sure that the prince who was going to receive the management rights had a significant share of the new company. Second, they would concentrate the high-profit work on the child company and grow it at an abnormal speed. Third, they would merge the large child company with the mother company and allow the prince to have a large share. After those steps, the management rights and assets had been transferred successfully.

The person who was preparing this huge management right succession project was Ji Kwang-Man, the Division Manager of A-Gen management. He had known Yoon Dae-Sung for a long time, and they were basically family. Ji Kwang-Man was extremely loyal to him, and he sincerely respected and liked Yoon Dae-Sung.

Then, what did he think about Young-Joon?

'A legendary horse that is stubborn and runs however it wants.'

That was Ji Kwang-Man's honest judgment about him.

When Yoon Bo-Hyun said that they needed to crush him a little, he told Yoon Bo-Hyun that he would take care of it.

Young-Joon was a difficult person to break, and he would become an enemy that they would constantly collide with if left like that. Then, wouldn't it be the best course of action to make him into an ally?

Ji Kwang-Man strongly proposed that Young-Joon should be appointed as an unregistered director during the board meeting. He also strongly insisted that they give him shares as well. It went as he planned during the board meeting, and the decision would be confirmed during the shareholders' meeting. magic

The next thing to do was to make Young-Joon an ally.

This was about two weeks from when Young-Joon recommended Veratex, a treatment for high blood pressure, to Hong Ju-Hee.

Ji Kwang-Man was parking his car in the Lab Six parking lot.

—This is the eight o'clock evening news. Today at three o'clock, the optic cell treatment derived from induced pluripotent stem cells that were developed by A-Gen has entered Phase One of the clinical trial. Trial patient Son has lost their vision to glaucoma.

The SBS News came out from the car radio.

Click.

Ji Kwang-Man turned off the radio and got on the elevator.

At the same time, Young-Joon was covering his face with his bag in embarrassment after the eight o'clock news revealed his interview to Jung Hae-Rim.

While standing beside him, she said, "Oh, and Young-Joon. In your next interview, don't glance at the camera. If you see on TV, all the doctors and scientists who are wearing gowns always keep a forty-five degree angle from the camera. That's the classic way."

“... I have wondered why they do that for a long time. Why do they always make it like that when a news outlet or TV program does an interview with an expert?”

“It adds trustworthiness to the interview if they make the situation look like the expert is not acknowledging the camera. It kind of feels like the expert is talking in a more objective way? Broadcasts are all about the details.”

“No, but I don’t understand why they do that when I’m doing the interview to explain this to the public who are watching it through the TV.”

“Did you argue about that with the reporters?”

“Well, I didn’t argue, but they did say something because I looked at the camera so much. But they gave up later on because I kept staring at it.”

“Wow! You really exceed my expectations. You don’t allow anything that is even a little unreasonable or unfair, do you?”

Young-Joon’s ears turned red.

“I don’t think it’s unreasonable or unfair... I didn’t look at it on purpose or anything. I’m not that much of a fighter, you know. I just couldn’t help but glance at it because it was bothering me a little.”

Young-Joon laughed like he was a little embarrassed.

“What is this?”

Jung Hae-Rim pointed to a book that was propped up on one side of Young-Joon’s desk.

“*I Lived As a Scientist, Not a Businessman*. Author: Yoon Dae-Sung? This is a book written by our CEO.”

“Yes.”

“You’re reading something like this because you’re about to be a director...”

“It’s not that. I only read it as a reference to help me decide what my next target will be for the iPSCs”

Ring!

The office doorbell suddenly rang.

“Who is that?”

Jung Hae-Rim turned to the door in puzzlement. Usually, the people who rang the office doorbell were salespeople who were here to deliver lab materials. But it was eight o'clock in the evening; it was long past the time for salespeople to visit.

“I'll get it and see.”

Jung Hae-Rim went outside the office. When she returned, she had a sour expression and Ji Kwang-Man with her.

“Sir?”

Young-Joon rose from his seat.

“You haven't gone home yet. Good. I was just going to meet Director Gil Hyung-Joon if you weren't here.”

Ji Kwang-Man did a fake laugh. As he approached Young-Joon, he saw the CEO's book on his desk.

“Oh, Doctor Ryu, you read our CEO's book as well?”

“Yes. I was wondering what kind of person our CEO is. I think I'll get to see him more often once I become a director.”

“Haha, it's a good idea.”

Jung Hae-Rim was packing up her things and leaving. As she left, she waved to Young-Joon and silently mouthed the words "good luck" to him.

“But what brings you here?” Young-Joon asked.

“Haha, it's nothing much. I just wanted to talk to you, Doctor Ryu. Would you like to go for a drink?”

Ji Kwang-Man was a businessman. Before he became the division manager, he usually took on the role of a lobbyist when A-Gen was just a small company. It was him who had gotten that investment from SG Group. It was also him who had undone all the frustrating regulations that were put on them

as a pharmaceutical company by the government. His lobby was simple but powerful.

He related himself to them through schools, mutual friends, and family. Then, he gave them a pretty girl and poured expensive alcohol into their stomachs using the girl's hands. They went back to their most primitive ways together.

And depending on the other person's personality, he used several cards that were up his sleeve: luxury goods, secret information, meetings with certain people, and more. If he included a plausible explanation and a profit-loss calculation, it was a success.

But Ji Kwang-Man did not lead Young-Joon in that way.

"This is the place. It's quiet, but has a nice atmosphere. It's the perfect bar to have a straightforward conversation."

The place Ji Kwang-Man led Young-Joon to was an upscale sky-lounge bar.

"I thought people that were around your age went to places like hostess bars," Young-Joon said as he took a seat.

"Haha, there are a lot of people like that. But I detest places where people get women and drink with them. What kind of drinks do you like?"

"I'm not sure. I don't drink often."

"How about some wine? They have a set menu here."

It didn't seem like Young-Joon would notice even if Ji Kwang-Man ordered an expensive appetizer, and he thought that it could actually backfire.

"That's good with me."

Ji Kwang-Man called over the bartender and ordered a bottle of wine and canapé. After they had a couple glasses, Ji Kwang-Man got to the point.

"Doctor Ryu, how would you feel about making a child company of A-Gen?"

"A child company?"

"Wouldn't it be easier for you to pursue the research you want if you became the CEO and led the company? We will also give you a fair amount of shares."

Young-Joon sipped his wine without replying.

Ji Kwang-Man smiled on the inside.

'Bingo.'

Ji Kwang-Man had thrown a curveball. What Young-Joon wanted was not money nor prestige. If he wanted things like that, he would have quit a long time ago and started his own venture company by now.

Young-Joon's goal was research. He showed the qualities of a businessman when he crawled up to management as he fought for company shares, but Ji Kwang-Man couldn't let that distract him. The reason Young-Joon wanted to interfere with management was because of the conflict he had with Kim Hyun-Taek. All he was trying to do was to perfect a level of power that no one from management could touch to protect research ethics, the thing he basically worshiped.

Then conversely, they could make him into an ally if they secured the autonomy of his research. It was a brilliant idea. They would start a child company for the succession of management rights, and Yoon Bo-Hyun would hold the largest percentage of the shares legally possible. Then, he would give the position of CEO to Young-Joon along with a percentage of shares a little lower than Yoon Bo-Hyun. The rest of that could be taken by A-Gen headquarters. The headquarters wouldn't have to concentrate their high-profit jobs on them since genius scientist Young-Joon would make the company big himself, which would only increase Yoon Bo-Hyun's power.

All Yoon Bo-Hyun had to do was befriend Young-Joon. Since they were similar in age, it would be easy if he sucked up a little and had similar hobbies.

Then, they would make Young-Joon Yoon Bo-Hyun's right-hand man when merging the company with A-Gen headquarters.

It was the perfect situation. It was no different with Nicholas standing beside Yoon Dae-Sung.

Ji Kwang-Man grinned and stared at Young-Joon.

'You can't resist, right? It's such a sweet and perfect deal.'

Clank.

Young-Joon put down his glass. Staring at him, he said, “Not a child company, but I was thinking about starting an affiliate company.”

“Kuk!”

Ji Kwang-Man almost dropped his glass. He actually shouted because he was so surprised.

“Y-You’re making what?”

Ji Kwang-Man’s voice trembled.

“An affiliate company of A-Gen.”

“...”

A child company and an affiliate company were different things. The former allowed A-Gen to have over fifty percent of company shares and therefore complete control.

However, an affiliate company had separate, independent management. The most important standard was how much shares they were willing to give to the company that was in the same group as them, but an affiliate company was basically a separate company.

“And I want to start with the possession of one hundred percent of the shares of this affiliate company,” Young-Joon said.

Things were getting worse.

“Doctor Ryu, did you have a drink or something before meeting me?”

“No, I’m serious about this. And I want you to help me get this proposal approved.”

“... Why are you trying to make an affiliate?”

“You just said it, sir, that it would be easier for me to pursue the research I wanted if I became the CEO and led the company. To ensure that, the best way is to keep all the company shares to myself first. Well, I could divide the shares up later for tax savings, but I am going to do that,” Young-Joon said.

“Well, if you are going to be that conservative about it, don’t you think it will be easier if you just start your own company?”

“I can only use A-Gen’s huge infrastructure if I’m in the same group.”

“ ... ”

“The reason I wanted to become a director of A-Gen was because of the ability to build an affiliate company,” Young-Joon said.

“In order for the concept of affiliate to be established, the same person must hold more than thirty percent of the two company shares combined with an affiliated person. My lawyer friend told me.”

“That... is true...”

“As soon as I become a director of A-Gen, I become an affiliate of the CEO. It fulfills the conditions of an affiliate company.”

“It’s not going to happen. Even if that’s the case legally, do you think the company will invest a large amount of money to make an affiliate company and just give it to you as a whole? Realistically, do you think that will happen?”

“It’s a small company compared to A-Gen. It’s going to be worth around twenty billion won. And there’s no need for A-Gen to invest because I’ll pay one hundred percent of it.”

“Excuse me?”

‘Did he just say twenty billion? Is this bastard crazy? No wait.’

Whenever Ji Kwang-Man thought that Young-Joon was not in his right mind, he always got stabbed in the back hard. If this guy looked like he was bluffing and was talking nonsense, it was true. There was a good chance that what Young-Joon was talking about right now was true.

‘But still, twenty billion won?’

Twenty billion won was not just a small amount of money that people would have lying around. How could a mere Scientist, that was the lowest on the company hierarchy, have twenty billion won in their pocket?

“...Doctor Ryu, you haven’t received A-Gen shares yet. You’re not thinking of selling that, are you? And you can’t sell them off that easily. You will have become a director when you receive those shares, and you must announce it even when selling just one share,” Ji Kwang-Man said as if he was warning Young-Joon.

“I know that. And I have no intention of selling A-Gen shares. Why would I sell it when I gave away the shares of my precious iPSCs?”

“... Then how would you come up with twenty billion won by yourself?”

“Haha, I won the jackpot, you see.”

“Don’t joke around.”

“It’s a secret. I’ll tell you next time.”

As soon as they parted, Ji Kwang-Man called everyone he knew. It was to investigate the deposits and withdrawals from Young-Joon’s account.

Of course, it wasn’t easy to find out an individual’s financial transactions, which was under heavy security, but Ji Kwang-Man influence reached key government agencies that dealt with money, such as the National Tax Service.

Ji Kwang-Man invoked the right to request financial transaction information to track Young-Joon’s account. Young-Joon peacefully agreed to all of it and put all of it out in the open.

After some time, the news was now talking about how Son Soo-Young was successfully cured in the clinical trial. When A-Gen was in a celebratory mood, Ji Kwang-Man couldn’t even sleep. He felt like he was going to go crazy.

The news that glaucoma had been conquered was broadcast every day and night.

“Fxxk, I wish they’d stop broadcasting that. That damn glaucoma!”

On his way to work in the morning, Ji Kwang-Man turned off the radio in irritation. This was two days before the shareholders' meeting where Young-Joon’s appointment as director would be confirmed.

At A-Gen right now, Young-Joon's reputation was skyrocketing into space. In this atmosphere, Ji Kwang-Man really didn't know what would happen if he really brought twenty billion won and said he was going to start an affiliate company.

Ring!

One of his networks from the National Tax Service was calling him.

"Hello?"

—Sir. Young-Joon is poor. He has tens of millions of dollars in debt in private loans. He also has student loans.

"And he has no assets?" Ji Kwang-Man asked on the phone.

—Nothing. He has no car or a house. He pays rent monthly for a basement. He's poorer than me. He hasn't gotten any funding from anywhere either.

"Of course. He can't get individual funding since he's going to be a director of the company. *Sigh...* This is insane."

Now, there were just two days left.

'He's going to make twenty billion won in two days? Is there some kind of job where the daily rate is ten billion won? What is this bastard trying to do?'

Chapter 38: Independence (5)

"We have a problem."

Ji Kwang-Man went straight to Yoon Dae-Sung and told him everything that had happened until now. But there was no way Yoon Dae-Sung also had a solution either.

The fact that Young-Joon was going to be appointed as a director was already confirmed. It had leaked through an unknown route and was put on the editorial page of a major newspaper company. And in the meantime, A-Gen hadn't denied it once. It was because they liked the image of being an open-minded and progressive company that gave a dramatic promotion to a talented young employee and gave them a seat at the director's table. They couldn't push back the appointment now.

“*Sigh*... Let’s go with it for now. I don’t know where Doctor Ryu would get that kind of money, but even if he did, we could just stop him from creating an affiliate company at the board meeting. We don’t have to propose the idea.”

The separation from a company and the creation of an affiliate company happened in two steps: it needed to be first brought up during a board meeting and then be approved in the shareholders' meeting. Young-Joon couldn’t even attend the board meeting since he was an unregistered director. It wouldn’t be a problem if it was held up in the board meeting and not passed over to the shareholders.

“But I feel like he’s going to do something during the shareholders' meeting...”
Ji Kwang-Man said.

“Do what?”

“I don’t know, but I’m anxious. What if he announces something about starting an affiliate company in front of the shareholders during the meeting?”

“Ah, that’s going too overboard with just a cure for glaucoma. The shareholders won’t react to that.”

Yoon Dae-Sung laughed and patted Ji Kwang-Man on the back.

“Let’s go with this for now.”

* * *

This was the largest A-Gen shareholders' meeting that was ever held; there were almost five times more people than usual. Mom-and-pop investors who had only invested small amounts in A-Gen had come to see Young-Joon. Among them, there were people who only had a single share as well.

There were three types of people at the shareholders' meeting. The majority of them were people who had benefited greatly from Young-Joon; they wanted to come see the golden calf.

The second group were people who were suffering from glaucoma or family members; they wanted to meet Young-Joon in person and show gratitude since he was able to greatly improve their quality of life.

The last group were people who had other neurological disorders or their families. There was no way they would be able to hear any good news in today's presentation since it wasn't like stem cell therapies were created in one day, but they were able to have hope as they had a base technology of induced pluripotent stem cells. That's what they were here for.

"... And so, we would like to appoint Ryu Young-Joon as an in-house director. He was recommended by the board of directors, and the candidate's brief history is as described in the shareholders' meeting notice," CEO Yoon Dae-Sung said.

"Director candidate Ryu Young-Joon has contributed greatly to the company's development by creating induced pluripotent stem cell and optic nerve differentiation technology and successfully finishing clinical trials for glaucoma. Are there any shareholders who object to this?"

"No!"

"Of course, not!"

The shareholders shouted in their seats. Of course they had no objections as Young-Joon had increased company stocks by fifty percent in two days.

"Thank you. Then, I declare that Ryu Young-Joon's appointment as an in-house director has been approved as recommended by the board."

Clap clap clap.

The crowd gave a round of applause. Young-Joon, who was sitting on one side of the stage, smiled as he saw someone wave their hand in the crowd. Cheon Ji-Myung, Bae Sun-Mi, Park Dong-Hyun, Jung Hae-Rim, and Koh Soon-Yeol were there. They had come to congratulate him on becoming appointed as a director.

Behind them were Choi Myung-Joon and Seo Yoon-Ju. He had come to show Young-Joon he was there, and she had come to spend time with Koh Soon-Yeol.

'They're interesting people.'

Young-Joon chuckled as he looked at them.

It was now four o'clock in the afternoon. The meeting was coming to an end. At the end of the shareholders' meeting, A-Gen usually gave the appointed director some time for a short speech.

Young-Joon walked up to the podium and grabbed the mic.

"Hello, shareholders," Young-Joon said.

"I'm sure you have heard that I used induced pluripotent stem cells to differentiate somatic cells into optic nerve cells and succeeded in curing glaucoma with it in clinical trials."

Young-Joon met eyes with each and every shareholder sitting in the hall.

"The reason why I succeeded in this important research is not because I was outstanding, it was because a lot of people at A-Gen helped me. If I did it alone, I wouldn't have even been able to start clinical trials; I wouldn't have been approved."

Young-Joon's voice was full of confidence. Now, it was time for this meeting to be turned upside down.

"So, my next research is something for A-Gen. While studying the history of the establishment and ideology of A-Gen, I came to know how the late Doctor Yoon Chul-Joong, the founder of A-Gen, spent his last days."

Yoon Dae-Sung froze. It was something that had come up multiple times in his book.

His father, Yoon Chul-Joong, had suffered from Alzheimer type dementia. It was the humble end of the greatest intellectual who led Korea at that time; he spent his last days in loneliness, losing all his brilliant knowledge and wisdom.

From then on, Yoon Dae-Sung's life goal was to cure Alzheimer's.

"I am working on the next treatment based on stem cells to repay CEO Yoon and the shareholders who have raised A-Gen this far."

Young-Joon walked over to the computer on one side of the stage and plugged in his USB. Experimental data began to come up one by one.

The first one that came up with a nerve cell with a unique shape. It had a dyed nucleus in the middle and his dendrites and axons coming out of it.

“This is a neuron,” Young-Joon said.

“I have succeeded in differentiating induced pluripotent stem cells into neurons. I am going to cure Alzheimer type dementia with this.”

The crowd was dead silent as if someone had thrown cold water on them. The crowd was frozen as if they had been hit in the head.

“T-Take a picture.”

As soon as someone among the reporters spoke...

Click! Flash!

Young-Joon was suddenly bombarded with a shower of camera flashes. The reporters' hands trembled. Compared to a glaucoma cure, this was on another level.

Was it true? Was it really possible to cure Alzheimer's?

Young-Joon added, “The development has progressed considerably. I would like to give you a brief report now. In the body, there is a biomaterial called activator protein C, and I have put 3K3A-APC, a variant of that biomaterial, inside iPSCs using the AAV virus. Right now, I have finished applying for a patent, and I am in the middle of doing animal experiments.”

“Doctor Ryu! What do you think will be the clinical success rate?” One of the reporters shouted.

“I think it will be one hundred percent.”

“And I think I will be able to cure most neurodegenerative dementia, not only Alzheimer's. I believe that it will be applicable to Parkinson's and strokes,” Young-Joon answered in certainty.

“Holy shit...” One of the lab directors murmured.

There was some commotion amongst the mom-and-pop investors in the audience. People were sending texts in excitement, some were crying into their handkerchiefs.

“After you differentiate it into neurons, how are you going to put the cells into the patient's brain?” One of the reporters asked.

“I am not going to use fully differentiated neurons. I have controlled the expression of the AKKT gene and created small iPSCs that are sixty percent smaller than regular stem cells. I have attached a caverlin ligand on the cell membrane to allow it to pass the blood brain barrier.”

“Are you worried that it will go somewhere else and not the brain?”

“The stem cells I created have glycoprotein RVG29, which leads it into the cerebrum in the bloodstream. Also, it cannot survive in other tissues, eliminating the risk of it developing into a tumor. I am going to treat Alzheimer’s by administering the stem cells into the veins and sending it to the brain, then administer 3K3A-APC and differentiate it into neurons in the lesions.”

“ ... ”

The reporters’ hands moved as fast as lighting to write down Young-Joon’s presentation. Cameras flashed at him from all over.

Jung Hae-Rim showed Park Dong-Hyun her phone. It was the real-time hot issues list on Naver.[1]

1. Ryu Young-Joon
2. Alzheimer’s
3. A-Gen.
4. Ryu Young-Joon stem cells
5. A-Gen shareholders’ meeting

...

“He’s actually insane. When did he even do that?” Cheon Ji-Myung whispered from behind.

“Doctor Ryu has been holed up in the animal experiment lab with Lead Bae and doing only that recently. He goes into the protein engineering lab once every two days and creates recombination proteins. He’s spending the nights there. I think the employees there also didn’t sleep. But they probably didn’t know what they were making,” Jung Hae-Rim said.

“Look at this.”

Park Dong-Hyun put up his phone. A-Gen stocks were skyrocketing like crazy. They were up around two percent compared to thirty minutes ago, but now, it was over a five percent increase.

“I can see it hitting an all-time high in two hours,” Park Dong-Hyun said.

The bald, middle-aged man sitting beside him glanced at him briefly. After he pulled out his phone and checked his stock app, he showed it to his friend sitting beside him, unable to hide his excitement.

The hall was suddenly buzzing. Young-Joon waited for them to calm down, then said, “But if we were to treat Alzheimer’s, it would be too much work for the pipeline that one single department is responsible for. I would like to separate this into another company and lead it myself for the efficiency of work and the project.”

Ji Kwang-Man covered his face with his hands and lowered his head. This was what he was afraid of. This was it.

Young-Joon said, “The company I will start is an investment company, A-Bio. The creation of this company is under way through my personal lawyer. Yesterday, I paid twenty billion won of my personal money as a stock subscription. I did not burden A-Gen at all as they did not invest.”

Young-Joon showed a bunch of documents to the audience.

“This is the subscription receipt. I am showing you this to show you my sincerity.”

Ji Kwang-Man sighed.

“He managed to... Where did he get that kind of money anyway?”

Young-Joon went on.

“A-Bio will be an affiliate of A-Gen and will contribute greatly to their development. They will also be the pioneer of the international stem cell therapy market in the future. Also, as a director of A-Gen, I will do my best to promote A-Gen’s rights, and I am also considering giving some of A-Bio’s shares to A-Gen to the extent where it will not affect my management rights.

As such, the shareholders of A-Gen do not have to worry about the stocks of A-Gen falling due to the advancement of the affiliate company.”

“Is this already confirmed?” One of the reporters asked.

“It will be on the agenda for the next board meeting. We will decide then how much of A-Bio shares A-Gen will take,” Young-Joon replied.

“I plan to confirm this notion by opening a special shareholders’ meeting afterward. I am considering distributing some of my shares to the shareholders who exercise their voting right and approve of the establishment of A-Bio. The amount that will go to each person will be extremely small, even far below the decimal point, but within a few years, it will be huge enough to buy a condo.”

“Wow...”

The shareholders looked at him differently. Again, there was commotion in the hall. Cameras flashed again.

The hot issue list on Naver was changing by the second from Ryu Young-Joon, to Alzheimer’s, and then to A-Bio.

“Fuck...”

Ji Kwang-Man quietly cursed. magic

Young-Joon was stating that he was going to protect the current A-Gen stocks and give them the new company’s stocks if they approve. On top of that, the new company was going to be built and run by Young-Joon and was going to be an affiliate of A-Gen. The shareholders would have to be insane to reject that notion. No, the shareholders looked like they were going to approve of it this instant.

Ji Kwang-Man turned around and looked at the in-house directors. Even some of the lab directors who were relatively less loyal to the CEO, such as Lab Five Director Joo Hwa-Young, looked like they were thinking about it.

“But what was he talking about when he said it was on the agenda? Why haven’t I heard anything?” In bewilderment, Gil Hyung-Joon asked Koh Yoo-Sung, who was sitting beside him.

“Nicholas.”

Yoon Dae-Sung turned around to face the CTO.

“Are you helping Doctor Ryu?”

“I like Doctor Ryu, but I’m not involved in this.”

“It was me.”

Kim Young-Hoon raised his hand. He smiled in a smirking way.

He was someone that the SG Group, a major company in Korea that had six percent of shares, had put on the board. SG Group was also doing pharmaceuticals; it was called SG Pharmaceuticals.

Recently, Young-Joon sold his new flu drug patent to SG Pharmaceuticals for one hundred billion won. It had come into his bank account just yesterday, and he had invested twenty billion won as soon as he had it. He had actually gotten more than he thought; it was probably because he was worth a lot more after creating iPSCs, optic nerve treatment, and a glaucoma cure.

And in the process of selling the flu drug, Young-Joon got to know Kim Young-Hoon.

“To be honest, the SG Group is hoping A-Gen abandons Doctor Ryu this time. Haha. We’re thinking about scouting him to SG Pharmaceuticals. Doctor Ryu is insisting on staying at A-Gen since SG Pharmaceuticals is nowhere as big as A-Gen and has crappy infrastructure, but he’ll go to SG Pharmaceuticals if you abandon him. The CEO of SG is also considering investing trillions of won into Doctor Ryu,” Kim Young-Hoon said.

“Anyway, we are going to put it on the board meeting agenda. We’re registered directors of A-Gen, right? Although it seems like Doctor Ryu cannot participate in board meetings. And in this situation, you’re not going to be able to cut it off at the board meeting either. Why don’t we set a date for the special shareholders’ meeting?”

The faces of the people who supported Yoon Dae-Sung turned sour.

It would be beneficial for SG Pharmaceuticals just for Young-Joon to create an affiliate company and leave A-Gen, which was growing rapidly. SG Group

didn't have a good relationship with A-Gen in the first place, so they didn't have a way to collaborate with Young-Joon even if they wanted to, but if Young-Joon became independent, it was possible.

Ji Kwang-Man's hand trembled.

'Why is the CEO or other people not getting this?'

There was something else that was seriously dangerous.

Young-Joon said that he was going to give a part of A-Bio to A-Gen in order to protect the shares that the A-Gen shareholders have. It was a plan to get approval for the separation of the affiliate company, but the situation was seriously twisted. Young-Joon was the one getting profit while the risk was taken on by A-Gen.

On the other hand, if A-Bio failed to begin due to A-Gen's rejection? Young-Joon would leave after as SG Group poured trillions of won into him, and A-Gen stock prices would plummet, causing irreversible damage to Yoon Dae-Sung's management abilities.

If A-Gen didn't take A-Bio's shares as he stated? Yoon Dae-Sung's management abilities would also take a huge hit as people would say that they couldn't take it even when Young-Joon was handing it to them. This would also be irreversible damage.

What this meant was that whatever Young-Joon requested in turn for A-Bio's shares, A-Gen had to give it to him to help start his affiliate company.

Young-Joon was so clever that he just may be the Devil's child. Ji Kwang-Man imagined what that monster would request in turn for A-Bio's shares in this situation. It was probably going to be an exchange of company shares, A-Gen for A-Bio.

'Fxxk.'

Young-Joon already had four percent.

If, if the worst happened, Young-Joon could be the CEO of A-Gen and A-Bio.

1. Naver is a popular Korean search engine. It has a function that shows the frequently searched words real-time. ?

Chapter 39: A Player of Life (1)

The shareholders' meeting came to an end.

As soon as it ended, the reporters ran out of their seats and came to Young-Joon. They surrounded him and bombarded him with questions.

"Doctor Ryu! Please tell us more about the Alzheimer's cure."

"When will you start clinical trials?"

"I heard that you were doing additional clinical trials for glaucoma as well. Are you not participating in that, Doctor Ryu?"

Young-Joon answered them as concisely as possible and quickly left. The guards stopped the reporters who were following him.

However, he ran into another group of people. This time, it was the shareholders. However, they were not people who were thanking him because they earned some money. With serious expressions, they ran in front of him with tears in their eyes.

"Doctor Ryu, thank you."

"I have glaucoma in one eye."

"My mother has dementia."

"Thank you so much."

"Please develop a cure soon. I am begging you. Dementia is such a sad and difficult disease, even to the family members."

"I believe in you, Doctor Ryu."

"I'm sorry, Doctor Ryu, but does it not work for spinal nerves yet?"

"Does it not work for organ regeneration? My husband is waiting for a liver transplant..."

"Do you think this cure will work on Lewy Body Dementia? My younger sibling is struggling with this."

“It’s different from stem cells, but can you cure cancer?”

“My wife has to go to the washroom every two hours after getting her bowel resection from colorectal cancer. Can you do something like this?”

“ ... ”

Since Young-Joon cured glaucoma in just a few months and now, he was saying that he was going to cure Alzheimer’s, it seemed like he would be able to cure any disease.

The people who had patients around them were getting anxious. They wouldn’t have asked these kinds of questions to an ordinary scientist. But Young-Joon’s achievements were something else. People crowded him with the expectation that maybe this person could have the solutions to all kinds of severe diseases.

Young-Joon looked very solemn.

“I will conquer those diseases as quickly as possible.”

* * *

“I’m doing it because you want me to, but are you sure this is okay?” Park Joo-Hyuk asked Young-Joon at the cafe after eating.

“What is?”

“I was wondering if it’s okay for you to start an affiliate company without consulting it with your company.”

“It’s okay. So what if they don’t do it? It’s a one-way stab-in-the-back, so it doesn’t matter. We’re not worried about hurting each other’s feelings or anything.”

“Hah... You did the stock subscription?”

“Yeah. I sold the flu drug and paid for it. I paid you the money I borrowed, right? I’ve been so busy that I’m not sure.”

“You paid it all back the day you said you got the money for the drug.”

“That’s a relief. I still have quite a lot left... Should I get you a car or something? You’re always working hard to help me.”

“Don’t need it. But I feel like you have somewhat changed.”

“I changed? Was I a dick because I got a little rich or something? Or was it about the car?” Young-Joon asked.

“No. I know you said that because you are really grateful. You would be an ungrateful bastard if you didn’t even offer. I took care of little Ryu Young-Joon and wiped his snot.”

“Then how did I change?”

“Not in that way, but... Kind of...”

Park Joo-Hyuk squinted. After searching for the right words, he said, “You’ve gotten clever or something. Stabbing your company’s management in the back and scheming something like this makes you seem like some sort of genius psychopath.”

“What kind of nonsense is that?”

“It was nonsense. Sorry.”

Young-Joon sipped his iced americano. He thought for a bit, then asked, “Do... Do you think I really changed?”

“Yeah,” Park Joo-Hyuk replied.

“The Ryu Young-Joon I know is kind of timid and sort of a loser, you know? He’s not one to do something as bold as this. Do you remember in high school when you skipped late-night study hall with me to go play games, but you went back to school because you were too nervous to play?”[1]

“That was so long ago. I was young back then.”

“But that’s who you are to me. So it is kind of weird to see you planning something this dramatic against the management people of a huge company like A-Gen and actually doing it.”

“Hm.”

“Of course, you have a crazy side, and you did do some weird things when you were pissed. In university, you fought with your advisor and put up a poster about it. But this feels worse than that.”

“ ... ”

“Why? Is it bothering you? It’s okay. You’re still Ryu Young-Joon even if you’ve changed a little. Even if you pretend to be nasty, I know that inside, you’re still that loser. Oh, wait. I’m getting a phone call.”

Park Joo-Hyuk took his phone and went outside. He had a habit of pacing back and forth whenever he called someone.

“ ... ”

Watching him, Young-Joon was lost in thought.

‘I changed?’

Before, during the year-end seminar, Park So-Yeon had said something to him. She said that he had changed. Park So-Yeon said that Young-Joon seemed angry. She said that a nice, dog-like person who liked people and always smiled had changed. But now, he had heard this from his friend of twenty years. This time, he called him a psycho.

Young-Joon checked Rosaline’s status window.

[Rosaline Lv. 4]

—Metastatic Status: Heart (2%), Liver (46%), Brain (7%), Kidney (13%), Spinal Cord (4%)

—Synchronization: 11%

—Cell Fitness: 2.5

—Gene Expression Control: None.

Rosaline had gained a level and became level four in the process of developing an Alzheimer’s cure. There weren’t any special abilities that had been added, but there was a value that bothered him.

‘Eleven percent of synchronization.’

Rosaline had once told Young-Joon how to eradicate the flu. It was to spread a virus derived from influenza and infect the entire world population. Thousands, even millions of people could die, but Rosaline said that they would easily pass the break-even point as it was within the number of deaths caused by influenza in three years. Then, the flu virus would be destroyed as humanity would gain resistance to the flu. It was really something that a psychopath would think of.

Perhaps as Young-Joon became more synchronized with Rosaline, his personality was affected? The human mind was thought of as something that was a free and independent realm, a deviation from the physical world, but it wasn't.

'Personality was affected by genes.'

A research team from Cambridge University published a paper in *Nature* in collaboration with French and American universities. It was a paper that had analyzed the genetic background of empathy. They assessed empathy in forty-six thousand individuals and analyzed their genomes.

What they found was that mutations at specific loci of 22 genes were identified exclusively in individuals exhibiting high levels of empathy. Conversely, the people who didn't have that mutation were low in empathy.

This meant that empathy was created by genes. Genetic factors also played a strong role in psychopathy. And it was a widely known truth that the proportion of people with low empathy increased as one climbed up to higher social positions. The scientific community generally believed that the difficult process of advancing to high-ranking positions naturally selected individuals with lower empathy levels. It was a harsh metaphor, but it was like how those who could refuse a friend who called them out at night after breaking up with their long-term significant other and prepare for exams would pass.

And now, Young-Joon was A-Gen's director, and he was going to be the CEO of A-Bio. He was at quite a high social position. The things he had done in the process was blackmail Ji Kwang-Man, commit huge things without the company knowing, and take advantage of his soaring fame to make a situation that management could not resolve.

'Was I someone who could do things like this?'

Could Young-Joon have done this, aside from planning and intelligence and in terms of personality or boldness? What if this was all created by Rosaline? Young-Joon thought that he thought of the plan himself and created an airtight plan, but what if it wasn't him, but Rosaline continuously giving him ideas?

Young-Joon examined the status window again.

—Metastatic Status: ... Brain (7%)...

Chills ran down Young-Joon's body.

"Hey! Lee Hae-Won is here."

Park Joo-Hyuk, who had left the cafe, came back with Patent Attorney Lee Hae-Won. She looked a bit thinner.

"Her face is half the size it was before. Do you have a lot of work?" Park Joo-Hyuk directed the question at Lee Hae-Won.

"Yes. I lucked out and got a lot of work, but it's killing me..."

"Hello..." Young-Joon greeted Lee Hae-Won in a dejected voice.

"Why are you so depressed all of a sudden?"

"Nothing you need to know about."

"Ha, what a weirdo."

Young-Joon let out a big sigh.

"It's okay."

Young-Joon didn't have to be that scared. He found a place where he could keep researching, he was giving hope to a lot of people, and he was developing the drugs he wanted. Everything was going well. He just had to stop using Synchronization Mode for the time being, just in case, and watch for any other side effects that may arise.

"Well then, let's talk about work." magic

Park Joo-Hyuk glanced at Lee Hae-Won.

“Do you have more to give me?” Lee Hae-Won asked. Her eyes seemed like they were saying that she didn’t want any more.

“I do,” Young-Joon replied.

“There is a patent that I published through the patent law office at A-Gen that is exclusive to Lab Six. The company’s stakes were set pretty high, so I’m going to move it to A-Bio, my new company.”

“What is it?”

“It’s probiotics. I am going to use it at A-Bio. Could you just prepare it for now? A-Gen management doesn’t know yet, but I am going to make a deal and get it. Then, we can start it for sure.”

“You’re going to get that in turn for your company stakes?” Park Joo-Hyuk asked.

“This and more shares. And one more.”

* * *

Young-Joon had paid off all his debt. He paid off his private debt, his parents’ debt, and his student loans.

And on Saturday morning, he got on the Gyeongbu Line train. It was to go to Daejeon, his hometown. Returning home after achieving success was the dream of countless young people, and it was also Young-Joon’s dream.

‘But I didn’t know I was going to succeed this much.’

He wasn’t going to recklessly spend his money, but he was going to buy his parents a house for them to live in. He was going to go look at some places when he was there.

Young-Joon sat at his seat and went into *Science* on his phone. Some passionate scientists who were a bit of a nerd had a tendency to read papers in their free time as well. It was similar to how people who drew for a living doodled in their free time if they had a pen and a notebook.

There was a paper published about a gene called isocitrate dehydrogenase 1 (IDH1). It was a gene that influenced cell metabolism and epigenetics.

Mutants of this gene were found often in gliomas, which were tumors that were found in the brain and spinal cord.

As Young-Joon was focusing on the paper, a message popped up.

[Synchronization Mode: Would you like to analyze IDH1? Fitness consumption rate: 0.1/second.]

Young-Joon closed the message. He was going to stop using Synchronization Mode for a while and see what kind of changes happened; his synchronization value might decrease if he didn't use it.

—Why aren't you pressing it?

A message popped up. Young-Joon's hand froze.

'What's happening? I didn't use Synchronization Mode or Advice, but I'm getting a message?'

—Rosaline is Level 4 now. When you read a paper, do an experiment, or focus on research like you are doing now, the cerebrum is activated, and the Rosaline cells in the brain cause a cascade. Because of that, it exceeds the threshold of stimulation required for my consciousness to occur.

—When you receive a Synchronization message, you always press the button when you have enough fitness. But you are not acting that way this time. Is there a reason?

“ ... ”

1. Korean high schools have a mandatory late-night study hall for grades 11 and 12 from 6:30 to 10:00. ?

Chapter 40: A Player of Life (2)

“... I just didn't do it because I think you are too synchronized,” Young-Joon said.

—There cannot be too much synchronization. The higher it is, the more logical thinking you can do and the more knowledge you can absorb. Why are you avoiding this?

“ ... ”

—I can detect an electrical signal from the neurons in the basal ganglia of your limbic amygdala to your GABA receptors. This is a change that occurs in the brain when humans feel fear. You have entered a state of anxiety and fear from the moment I talked to you.

“That is...”

—I think I know. You are worried that your thoughts will be affected as the synchronization value increases, right?

Young-Joon gulped. There was nothing that Rosaline did not know. Hiding it was impossible.

“Can that happen?”

—Yes, it is possible.

Rosaline replied.

—Ryu Young-Joon. Your body is like a huge company, like A-Gen. Although miniscule, I have a share in your body. That much of my vote is going into all your thoughts and actions.

“Shit...”

—Thoughts are just the results of electrochemical interactions that occur in the cerebral nerves. I have taken over part of your cerebrum, and because I am synchronized, the electrical signals I create are also included in your thoughts.

“How come you’re just telling me this now? You should have told me this earlier.”

—Why?

“Because I don’t want my thoughts to be interfered with.”

—But everything interferes with human thoughts. It is like when you mentally create an additional incurred expense the moment you see a pack of gummies hanging near the cash register in a supermarket. All the information you perceive from your five senses is constantly creating new electrical signals in your brain. Even being sick from a light cold can change which neurons get excited and therefore, change the conclusion of your thoughts.

The signals I make are no different from that. Thoughts that are completely free and not interfered with by anything other than your own brain is a fantastical ability that does not exist in humans.

Rosaline sent Young-Joon messages like a rapid-fire cannon. He rubbed his head as he felt an imminent headache.

“Alright. But the thoughts you make are different from that.”

—How are they different?

“You have no emotions. It’s different from the thoughts that humans have. I don’t want to damage my human nature.”

—I do not understand. What is human nature?

“It’s about being human. So...”

Young-Joon was stuck.

‘How should I explain this?’

“A moral sense... Or feeling someone else’s feelings?”

—I can understand human psychology more accurately than anyone else. For example, I can not only determine that you simply feel the fear you feel, but I can also quantify the level of fear by measuring the excitement of the GABA receptors...

“No, no. That’s not what I’m talking about.”

—Is it a different concept?

“Yeah.”

—I cannot understand.

“That’s why you have no humanity. You would have understood if you had it.”

—That is the circular argument fallacy. The process of clarifying the definition of humanity and proving its existence must come first.

“Ah, whatever. Stop it. Is this some philosophy class?”

Young-Joon cut Rosaline off.

Other than that, this was a serious issue. It didn't seem like Rosaline was threatening now, but Young-Joon didn't know how this would unfold.

'I'm not going to have to fight for shares of my own body with Rosaline, am I? But wouldn't that have almost a zero chance of me winning? I'd rather fight someone like Ji Kwang-Man; she's a munchkin on another level.'

—Your level of fear has intensified.

Rosaline announced.

—But Ryu Young-Joon, you do not need to worry.

“Why?”

—I cannot survive without your body. Therefore, I will only look out for your safety and will only function to achieve what you want. I will protect your body, keep it in the most optimal conditions, and I will help you gain power by elevating your position within this society.

“That's nice, but that's not your life goal, right?”

—Life?

Was life not the right word to use? Rosaline sounded a little shocked as well. She usually knew everything and just gave explanations to Young-Joon, but for the first time, she was speechless.

—Yes... I think I know what you are talking about. I am a living being... Yes. I have something called a life. But Ryu Young-Joon, this isn't a question I can answer.

“What?”

—Why did you create me? Since you are my creator, the only person who could give me an answer to this question is you.

“...”

—I have never thought about something like this before. Is there a goal or reason for my existence?

“... No, there’s nothing like that. It was just an accident.”

Somehow, Young-Joon felt like he was doing something wrong.

“Sorry.”

—Why are you apologizing? I am your subordinate. You do not have to apologize to me in any situation.

Rosaline said.

—Anyway, I now know that there is no goal or reason for my existence. As planned, I will function for you. I can only survive if you are well-kept.

“Are you serious?”

—Of course.

Bleep!

A message window that was different from anything he’d seen before popped up.

[Rosaline now has an ego.]

[From now on, you can have everyday conversations with Rosaline.]

[However, you must still consume fitness when you gain insight into the microworld.]

‘Now she has an ego? Wow, isn’t this getting more dangerous?’

“Rosaline.”

—Yes.

“Now, can we just talk without Synchronization Mode or anything like that?”

—That’s correct. And I could start the conversation before you call on me. I have gained a new nervous system. From now on, I can maintain full consciousness.

“ ... ”

—On top of that, you can give me control of your body and rest if you want.
magic

“Ack! No, that’s okay,” Young-Joon quickly replied.

* * *

In countless movies and dramas, a problem always arised when the successful main character went back to their parents with lots of money and prestige. It was cliché-type things, such as the main character getting rid of the nasty customer or superior that was picking on them at work.

But Young-Joon’s parents were already living in comfort because everyone knew that they were his parents.

Young-Joon’s father, Ryu Tae-Sik, was working as a security guard at Happiness Apartment, but the residents who didn’t care much about him started to come to talk to him, one by one.

The first was the lady from Unit 701; she was in graduate school.

“Excuse me! You know Doctor Ryu Young-Joon, right? My mom said that you were his father...”

“Ah, yes, yes. That is my son.”

“Haha. It’s nothing much, but I’m doing a graduate program in medical school. But I just saw Doctor Ryu doing an interview after he published a paper on *Science*.”

Handing Ryu Tae-Sik a beverage gift set, she added, “Um, could I meet Doctor Ryu? It would be best if I could work with him, but even if I can’t, I would really like to meet him.”

“Oh, yes, I will talk to him about it. But my son is very busy too...”

“Haha, it’s alright if you can’t. Well, I guess he is super busy. Don’t worry about it.”

At this point, Ryu Tae-Sik thought his son was a little famous. He smiled about it all day. He didn’t know what *Science*, the journal Young-Joon published a paper in, was, but it seemed great since a lady who didn’t even usually greet

him came up to talk to him. And a little while ago, his wife said that Young-Joon sent her almost ten million won.

'He was smart ever since he was younger. Maybe he did something huge and got a huge incentive from work!'

That's the level of success Ryu Tae-Sik could imagine. Thinking of it now, it was trivial.

One day, Young-Joon suddenly appeared on TV. Ryu Tae-Sik was watching television from the TV in his patrol room, and Young-Joon had suddenly appeared for an expert interview. He said things that Ryu Tae-Sik could not understand, talking about curing glaucoma or something to the reporter with an awkward face and then left.

'He's on television now, too.'

Of course, he was proud, but he was more fascinated.

Then, two weeks passed. It was when the news that Young-Joon had succeeded in the glaucoma clinical trials was becoming known. Now, the residents all talked about Young-Joon and glaucoma whenever they passed him.

"You're probably so happy that your son developed the first glaucoma cure in the world. He's going to get rich."

"Are you quitting your job now? I'm so envious that your son succeeded like that. My son has to study too. How did you get your son to study?"

"Everyone on the news is talking about Doctor Ryu. My executive manager also has glaucoma in his right eye, but you can cure it, right? He asked me to thank you when I told him about you."

"Hey! I got enough money for a new car thanks to your son! I had about thirty million won in A-Gen, and it jumped to about fifty million in a few days. Tell him I said thanks!"

If a parent heard compliments and appreciation every day, even the most conservative parents would be a little proud of themselves.

But after this, the news about the development of an Alzheimer's cure broke out.

Ten percent of the people living in this apartment were elderly people over the age of sixty-five.

Could they believe it? What was going to happen now?

The neighborhood grandpas began sitting in the small patrol room for hours. People lined up asking to see his great son. Ryu Tae-Sik received questions about whether it was happening or when the drug was coming out every two hours.

Furthermore, the news that Young-Joon was making an affiliate company called A-Bio also broke out.

Now, Ryu Tae-Sik's title had changed from Security Guard to the Father of the Alzheimer's Cure CEO. He actually felt uncomfortable now rather than proud. The worst of them all were matchmaking requests.

"I heard that Doctor Ryu is still single? My daughter works at the town office here. Maybe we can set something up for the kids?"

"My niece is an elementary school teacher. She is kind, pretty, nice..."

Ryu Tae-Sik was getting requests like this every day. The worst of them all was the grandma from Unit 1201.

"Ryu's father. Come look at this."

"What is this?"

"It's my granddaughter's picture. She's pretty, right?"

"She is."

"Why don't you tell that Doctor Ryu Sung-Joon to meet her?"

"But she looks a bit young..."

"Eh, no. She's twenty now. She took her university entrance exams two months ago."

Ryu Tae-Sik was speechless for a few seconds.

“She’s still a kid if she’s twenty! Why are you trying to find a partner for a girl who just took her entrance exams!”

“She’s not young. She’s all grown up. Back in my days, people got married when they were eighteen.”

‘Well, that was sixty years ago.’

“... Does your granddaughter know about this?”

“She doesn’t know. I’m going to tell her when Doctor Ryu Sung-Joon says yes.”

“It’s Ryu Young-Joon, not Ryu Sung-Joon.”

“Alright. Mention it to him.”

“Yes...”

But Ryu Tae-Sik never mentioned things like this to Young-Joon once. It was because he did not want to bother his busy son with this.

This was no different for Young-Joon’s mother, Oh Young-Sook.

She worked in the kitchen of a restaurant in Domadong, Daejeon, and she was smiley all day. It was because her son was coming back today. She didn’t care about what papers he wrote, what drugs he made, or what company he was starting; she was as happy as when Young-Joon used to come home as a university student.

“Ah, Young-Sook is so happy her son is coming,” Kim Sook-Ja said as she washed the dishes.

“How happy would she be that her son came back after succeeding?” Han Young-Mi added.

“Brush out your bangs since you’re seeing your son.” Laughing, Kim Sook-Ja pointed at Oh Young-Sook’s messy bangs.

“But didn’t he say that he was coming straight to the restaurant? He said that he’s going to see his dad with you, right?” Han Young-Mi asked.

“Yes. He said that he would stop by at home to leave his stuff and come here at four.”

“Four?”

Han Young-Mi tilted her head in confusion.

“It’s after five right now.”

* * *

In Ji Kwang-Man’s office, Yoon Bo-Hyun asked, “Is that bastard really starting a company?”

“We can’t stop him with his reputation now,” Ji Kwang-Man replied.

“I heard he’s going to exchange it for A-Gen stocks.”

“That’s what he’s going to request.”

“... Uncle, are you going to let him do that?”

“...”

“What happens to me if A-Bio is made?”

“Management succession will get much harder.”

“There are people who actually built this company, even from my grandpa’s generation. My father, you, Lab Director Kim Hyun-Taek. Didn’t you sleep five hours a day and build this company? And you’re just going to give it to Ryu Young-Joon? You’re going to hand him the management rights? Are you serious?”

“It’s not that bad yet.”

“Maybe not right now, but doesn’t he take everything if I don’t inherit the management rights? It’s finished if he uses A-Bio to exchange shares and then merge companies later on!”

Originally, the plan was to make a child company in Yoon Bo-Hyun’s name, fast-track its growth by giving it all the high-profit work, and give him the management rights to A-Gen by merging the company.

But if a strong start-up called A-Bio gets launched and it begins to grow rapidly, they couldn't use this management succession strategy at all.

"Phew."

Ji Kwang-Man let out a sigh.

"... You said to leave it all to you, Uncle. You said you were going to make him into an ally."

"..."

He was going to, but Young-Joon didn't fall for it. Ji Kwang-Man now thought that it was impossible to appease him.

Young-Joon wasn't a wolf that they could just compromise with, he was a tiger. He was someone who would only be satisfied after eating up everyone and ruling over them.

"When we destroyed the liver cancer drug that we bought from Celligener. You were the one who had final approval," Yoon Bo-Hyun said.

"If Ryu Young-Joon gets ahold of the company's management rights, you'll be the first one to be beheaded. So will I."

"..."

"And I know worse business deals that you have done. What do you think will happen if Ryu Young-Joon finds out?"

Ji Kwang-Man quickly raised his head. He glared at Yoon Bo-Hyun like he was telling him to watch his mouth.

"My father, you, and Lab Director Kim on anth..."

"You be quiet!" Ji Kwang-Man shouted.

"..."

"Phew."

Ji Kwang-Man sighed again.

“Bo-Hyun, then should we kick Ryu Young-Joon out right now? Even in that case, our management takes a serious hit. Think about how the shareholders would react.”

“What should we do when the goose that lays golden eggs tries to bite its owner? We already gained some profit off those golden eggs. We can maintain our status and management without any losses if we don’t send him to another farm.”

“... You. What are you thinking?”

“Uncle, this is the maginot line. If we give him more time, we lose this opportunity, too. Do you know that Ryu Young-Joon denied Congressman Shim Sung-Yeol when he came to see him? Because he’s so caught up with ethics, he does not have powerful people as his guardian. It means that he’s only famous.”

“ ... ”

“But if he launches A-Bio, he will have actual power since power comes from money, not fame. Even if he is a goose that lays golden eggs, we have to decide to cut his belly open at this point,” Yoon Bo-Hyun said.