## Global Acceleration Hubメンバーインタビュー: Seiji Hirasaki

**Seiji Hirasaki**
Co-Founder of OriCiro Genomics
Linkedin

1. **Thank you for agreeing to participate in this interview. First, if you could start off with giving an introduction.**

   I'm Seiji Hirasaki and I'm one of the co-founders of OriCiro. We started the company four years ago at the end of 2018 and I led the company's growth as CEO, though I've recently stepped down. Prior to founding OriCiro, I was working for a gene therapy company called AnGes which is a Japan based company focused on the commercialization and development of gene therapy. I was with AnGes for almost 18 years doing business development and corporate development and was COO of the company when I left.

   I'm a physicist by training, so I wasn't in the bio-pharma nor bio-technology sphere to begin with. I started off my career as a journalist at Nikkei in Japan, more specifically a science journalist where I wrote about biotech, among other topics. After spending almost 10 years with Nikkei, I made the decision to join the biotech sector because when I interviewed people from the biotech sector, I found that this industry interesting and attractive to me. Through that decision I joined AnGes and worked for them in the UK for more than 10 years doing business development covering Europe and the US as well. Afterwards, I moved back to Tokyo about 10 years ago. I came across this very attractive technology invented by Professor Su'etsugu in 2018 and made a decision to start a company with him to commercialize his technology.

2. **Would you please tell us more about OriCiro and its goals?**

The technology is about DNA synthesis, constructing so-called plasmid DNA which is a circular DNA molecule, a common tool for biotech research and manufacturing. There are two major factors involved in the OriCiro technology: constructing new plasmid DNA and amplifying those DNA. The amplification is the most innovative part of our technology. Normally you need to use E. coli cells to amplify plasmid DNA when it comes to long DNA which is longer than 10,000 base pairs. For shorter DNA, you can use a very common technology called PCR but it is not applicable for long DNA. The method of using E. coli cells, which is called E. coli cloning, has been the gold standard for the past 50 years. But the issues of using E. coli include it's cumbersome, takes a long time (at least two nights) and you need to use specialized techniques to make it successful. There's really no other choice because it's been the only viable approach. Dr. Su'etsugu invented a cell free technology, which means you don't need E. coli cells. It's a mixture of many enzymes which are responsible for amplifying DNA in the E. coli cell. So using our technology, you can mimic the process of E. coli cells in vitro without needing any actual E. coli cells, giving you the option to remove E. coli cells from your lab. That's the most innovative part of the technology.

I became interested in that aspect of the technology. After we founded the company, we started manufacturing the mixture of enzymes in-house instead of outsourcing as it's quite complicated.

**Thank you for informing me. I can certainly understand the benefit of removing E. coli from a lab.**

I wouldn't say that you could replace E. coli cloning overnight. It's been the gold standard for so long and researchers have become set in their ways of relying on this type of cell cloning. I think our technology requires them to open their minds a little and take the time to adapt to our cell-free approach. The fact that our technology is innovative isn't affected by this.

3. **What motivated you to expand OriCiro globally to the US?**

From Day 1, I thought our market was global. It's relatively common in Japan that the first market is the domestic market, and if you find success there, then it becomes suitable to expand to the global market. I thought that our technology was borderless and that the distinction between the Japanese market and the international market was meaningless. And of course, the US is the biggest market in the pharmaceutical and biotech sector, so it was a very logical decision to start there. I started attending international business

conferences such as BIO right after the foundation of our company. I used to live in the UK for many years, so I was already familiar with a non-Japanese market, attending those conferences, making presentations and having meetings with potential partners wasn't as hard.

4. **What challenges did you face when expanding OriCiro globally? How have the Global Acceleration Hub program resources in Boston helped you overcome those challenges?**

   The technology faced some pushback from time to time and I don't think it's so much of a matter of the global market or Japanese market, it's because it was very new. Generally speaking, people find it difficult to accept it or transition to using it because of how new it is. Some people are very interested in these newer technologies and will test them out, but for the majority of people, it's hard to change a process which you've been accustomed to for many years. It wasn't easy for us to convince people that our technology works.

   I was in charge of connecting ourselves to GAH. I made contact with Jessy LeClair and we had a couple of meetings. She was kind enough to introduce us to one of the mentors based in the Boston area and we were able to have some discussions with him. At that time, we were looking into creating a subsidiary in the US, but we didn't know where we should set up. We ended up looking at Boston and somewhere on the west coast and we made a comparison between the two. During that process, we had an interview with experts in the Boston area though GAH and we eventually decided on Boston for our location.

   We did plan to have a Boston office, but the acquisition happened, so we never had the opportunity to actually open it. We knew that having an office at CIC would be a realistic possibility as it was relatively inexpensive compared to other options. It's also located in the heart of Cambridge, so it would have been perfect for a small company like us.

5. **Could you speak a little bit about the acquisition by Moderna?**

   Moderna contacted us first because they wanted to test our technology. At that time, there were a lot of potential customers like Moderna who were interested in our technology. Moderna tested the technology in-house and I guess it was very positive for them, so started the discussion.

Our case was Moderna's first major acquisition, so it was an honor for us. We made the decision of the acquisition because we thought the technology would be used for the benefit of patients on a quicker timeline.

6. **For startups from Japan who are considering expanding overseas, what makes Boston an essential location for those start-ups to consider?**

   I would say there are two major reasons. One is there are many potential customers in the Boston area in the biopharma sector. They are not only potential customers but also future partners for R&D collaboration. The second reason is that there is a large pool of talents, though it's kind of a double-edged sword because it is relatively easy to hire people but difficult to retain them. Many companies are trying to hire the best, so there is a competition.

7. **What advice do you have for other startups from Japan who are looking to enter the global startup sphere?**

   When looking at the global market, don't be shy about going abroad. If you have confidence in your technology, products or services, just go and give it a shot. Go to events and meet plenty of people.