

Global Acceleration Hubメンバーインタビュー: Richard Kim



Richard Kim

Principal AI Scientist, DAIZ, Inc.

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

My name is Richard Kim. I am the Principal AI Scientist for DAIZ, Inc. and the interim CTO of DAIZ USA Inc., a wholly owned subsidiary of DAIZ Inc. in Japan.

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

DAIZ is the leading producer of plant based meat in Japan. We don't make the plant-based burger patties ourselves, what we do is provide the protein ingredients that enable food producers to make their own plant-based meat. We are collaborating with companies in Japan such as Seven & I Holdings, Ajinomoto, MOS Burger, and several other food companies.

Our goal here in the US is to apply the same technology in pharmaceutical research. We are exploring what kinds of chemical compounds can be derived from germinated seeds. From these compounds, we identify the health benefits we can derive from them. For example; anti-cancer therapy, antibacterial therapies, or health supplements.

3. Could you please tell us more about your role within DAIZ?

I am the Principal AI Scientist, which means I'm tasked with creating algorithms to analyze the tens to hundreds of thousands of chemical compounds that we induce from germinated seeds. For the past two years during the pandemic, I've been primarily involved in engineering and software development of AI software. The goal here in the US is to create the world's largest natural product chemical compound library. We hope to create a chemical database that contains between a hundred million and one billion chemical compounds.

Utilizing our proprietary technology called the "Ochiai Germination Method," we rapidly induce germination of seeds in order to repeatedly test for new compounds. It's based on over 20 years of research by our CTO in Japan, Koji Ochiai, and we're going to combine his patented technology with my AI software. We're hoping to build this massive database and call it the Yokozuna Database. We want to symbolically suggest that our library is going to be the world's largest.

4. Who do you want to use this Database that you're creating for DAIZ?

Pharmaceutical firms are always on the lookout for interesting chemical compounds and interesting applications for treating diseases. Startups as well. When I say natural product, I mean compounds derived from organisms, not synthetically fabricated by a chemical engineer. We want to be the premier provider of these compounds for therapeutics research. DAIZ doesn't look into specific diseases, we stay neutral in that regard so we can provide our compound library to all sorts of firms that would want to work with us. We can also collaborate with them to screen and narrow down the compounds in the library that will most likely be effective against whatever protein and enzyme targets that they want to focus on.

5. What was DAIZ's motivation to expand globally into the US?

Massachusetts is home to the world's biotech hub. It's where all the major pharmaceutical firms have their research sites, where hundreds of various drug discovery startups are located, and there's a lot of capital here to fund those endeavors. There's potential for all kinds of collaboration, whether it's with other startups in the field, or with large pharmaceutical companies like Pfizer, Novartis or Roche. They're located in the Boston area, so our president, Tsuyoshi Ide, felt that we needed a presence here to build connections with these firms.

6. How have the resources provided by the Global Acceleration Hub helped DAIZ overcome any challenges during its growth and move to the US?

The reason I'm with DAIZ in the first place is thanks to CIC and Venture Cafe Cambridge. DAIZ's CEO, CTO, and CFO received a recommendation to attend the Thursday Gathering hosted by Venture Cafe Cambridge from JETRO New York. I ended up attending the same night that they did, and I sat down next to them wanting to practice my Japanese. It turns out they had this particular data science problem that needed to be solved and were looking for a computational scientist to solve that problem. It just so happened that I was working on a similar kind of problem while I was at MIT. I had been working on mathematical models that I didn't think had any particular applicable use at the time. However, when they told me about their problem, it clicked. I expressed my idea of using my models on their particular problem, and it ended up being a really great match.

From there, we were able to build a connection and merge our ideas. They were nearly ready to give up on the Pharma side of the business because they weren't finding any solutions to their problem until we met. I just wanted to speak to them to practice my Japanese and now it's been 3 years with them. I managed to solve parts of their initial problem during my first year consulting for them then, and I joined their team to continue for the past two.

7. What connections have you made in Boston through the Global Acceleration Hub program?

We were connected to BASF and two other data science companies. While those didn't pan out, I'm sure that we'll make more connections.

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

In regards to drug discovery, pharmaceutical and biotech, there is no other city in the world like Boston. Similar to how Silicon Valley is the center of consumer tech, social media and fintech, the density of companies here is not rivaled anywhere else. Massachusetts also has huge grants available, showing the state is supportive of the industry thriving here. Lastly, the fact that we have Harvard and MIT, along with Boston College, Tufts, BU, & more. Because of this, we have a large student population, filled with graduate students and doctorates from all over the world that we can draw from. I think that all serious biotech companies should consider setting up a base in Boston for

recruiting at the least, not to mention the potential of collaboration and access to a large customer base as well.

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

Japanese startup management needs to be able to speak English. It's the hard truth. Because English is the global language for business, the global workforce is going to be learning and speaking English and rarely will they speak Japanese. To grow to become a global firm, you need to be able to work with folks from around the world. You don't need to be fluent, but just having some English skill, along with respecting cultural differences, will get you so much farther than those who don't put in the energy. Highly skilled scientists and engineers always have options, so you need to be appealing as a global company or you will have trouble securing a global team.

I think another thing that Japanese startups get stuck with is that they optimize for the domestic market first. Then, when they head overseas, a lot of the quirks and specificities of the Japanese market don't translate well internationally. As a startup, thinking about the global market then coming back to Japan later helps them have the chance to expand and really become a large global company. Admittedly, it is much harder that way, but the payoffs are worth it.