Interview: Rose Lin & Racho Jordanov, Co-founders, JHL Biotech

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Dr. Karen Wen of Mycenax likened her company to a “kitchen.” Would you say the same of JHL?

Racho Jordanov (RJ): We might indeed liken ourselves to a kitchen. But I would add this: there are a lot of cookbooks out there, but people still like to go to a restaurant that has good chefs. This is our difference at JHL. We have great chefs.

Our strength is not in our capital investment. Our strength is not in building the best kitchen, where anybody might come and cook. In the biopharmaceutical business, the process is the product. Our

team, which is responsible for our science and innovation, is our greatest strength.

Rose Lin (RL): Last year, we brought our business plan to James Huang, the managing partner of venture firm Kleiner Perkins Caufield Byers (KPCB). James met us in Hong Kong on February 5th. He read our proposal, and essentially committed from that first look. He told us that he had recently evaluated perhaps fifty or one hundred business plans from biotech companies that were looking for investors. He had been saying no for the last two years. But he told us he would say yes to us—and he would say yes because of our experience. Because we are the chefs.

RJ: This company was Rose's dream. When she was looking for a partner to realize that dream, I was fishing in Canada. She called me and said that there is a possibility that some investors in China would fund her, and she asked whether I could help her come up with a few presentation slides. 45 minutes later, I sent her seven slides, and she passed them on to her contact. In our first round of financing, we raised more money than Genetech's IPO!

Mr. Jordanov, as an introduction to JHL, you write, "Many of us at JHL Biotech started working in the biotech industry at a time when we were discovering how to manufacture proteins and monoclonal antibodies. " You realized that "while we had been innovating the manufacture of biopharmaceuticals, the associated costs made innovative medicines, particularly biotech medicines, unaffordable to many in the developed world and many millions in the emerging and developing countries." As two former Genentech employees, can you tell our readers more about your formative experiences at one of the world's first biopharma companies, and how they shaped your vision for JHL?

RJ: Our first driver is that we believe that manufacturing innovation can reduce the cost of biopharmaceuticals. We take advantage of the predicament that Big Pharma puts themselves into: the fact that their processes are developed a decade before they are actually commercialized. We believe that by implementing innovative technologies early in the development process, we can improve on the cost of goods.

I would not say this idea is specific to our experience at Genentech. Our team has people from Amgen and other companies. The idea is the realization of innovative engineering and science that was learned through 30 years of cumulative experience.

RL: Many of us have reached retirement age. I myself though about retiring, and just playing with my grandkids. However, if I did that, then everything I learned would stay buried in the U.S.

When, like many of my colleagues, I retired from Genentech after 2009's buyout by Roche, I was invited to help run a small Taiwanese biotech company: Eusol. I worked there for three years. I learned that Taiwan's biotech capabilities were five or seven years behind the West. I began to think about persuading some of my former coworkers and friends in California to combine our energies and experience, and create a small company that is free from bureaucracy and politics. I knew that without those barriers, we could be efficient, and we could be very successful. We could, moreover, pass down our knowledge to the younger generation.

Why headquarter this company in Taiwan?

RJ: Firstly, Taiwan is in Asia—and this region is where the growth is. Sales numbers are climbing double digits every year, whereas in the U.S., the market only grows at around two or three percent.

Within Asia, Taiwan has a number of advantages for us. First of all, it has wonderful science and a great entrepreneurial spirit—the Taiwanese have demonstrated that fact many times in the ICT industry. They understand technology, and they understand manufacturing. However, the manufacturing knowhow for biopharmaceuticals was missing. Our company fills that missing link very well. Taiwan also respects intellectual property, and has excellent support for clinical trials. The country is working with China on the exchange of clinical data.

Our dream has always been to create what we call our 'solar system': a technology center in Taiwan, with manufacturing companies spread around China and South East Asia. We are already putting the largest single-use biopharma factory in the world in China—but we won't stop there.

Most countries in this region have the same issue: they cannot afford Western drug prices, and while they have the science and the funds to make drugs themselves, they lack technical understanding. That is something we can provide. It is something we can provide not just in the biosimilar field, which is a cornerstone for us, but also in new drugs.

Today, we have a partnership with a NASDAQ-listed biopharmaceutical company that has developed a metabolism drug and are looking to commercialize it. They did great work on the research component, and JHL is going to contribute the 'D' part of the R&D. The market will be served in Asia by JHL, and our partner will retain rights in the rest of the world. Our model is already working.

JHL was founded less than a year ago and seems to have already reached a relatively advanced stage. How were you able to develop so quickly?

RJ: Well, firstly, this is my third startup!

But you're absolutely right: not many companies in this business are sixth months old and already have a first contract. I was talking with a potential client yesterday about process development. I told him that in this field, you have to have the vision to see around the corner. This is built into our business model: we anticipated that China and Taiwan would eventually have a good understanding with each other regarding clinical trials. We anticipated that the China government and the Taiwan government would be willing to support us financially, complementing our venture capital investors.

We also deliver very, very quickly, because of our technical expertise. In six months, we have already developed a biosimilar that matches the innovator product in every assay. We showed this product to our board, and they stood and applauded! These are the people that gave us our funding—so it was very rewarding to live up to our promises.

RL: As I began to mention, we are a small company. As of today, we employ only 23 people. Our decision-making process is extremely straightforward. Every issue does not have to go through ten layers to reach a resolution. We stress effective communication.

We also hire people with passion for what they do, and are also eager to learn. After we finished our financing round on December 25th, we got our first facility up and running within three months.

RJ: This is another reason we love Taiwan. The country has engineering companies that are some of the best in the world. We have leveraged their knowledge, combined it with our own, and succeeded very quickly in developing a great facility.

Why put your other satellites in South East Asia?

RJ: There are approximately 500 million people in South East Asia—almost one half the population of China—and the industry is doing a poor job of reaching them. Indonesia, for instance, has a population of 220 million, and the breast cancer rate is similar to the Western world. But only 11 women received Herceptin in Indonesia in 2010, because Herceptin has a 60 thousand USD per year price tag.

Organizations like the Bill Gates Foundation began attacking the challenges in developing countries at the vaccine level—the prevention level. However, when you cannot prevent, you need our model to make drugs affordable.

Focus Reports recently interviewed Shane Cooke, president of Alkermes. Alkermes is an Irish drug development company on its way to becoming an integrated biopharma player. Mr. Cooke remarked that now that his business was in a strong financial position thanks to its services, it wanted to become the next Amgen. Are you also looking to build up your revenues and eventually focus on your own pipeline?

RJ: I would say we want to be the IBM-McDonalds of the biotechnology industry. Like IBM, we will provide the processing, the engineering, and the science power to companies that need it. Like McDonalds, we will implement the homogenized quality controls, infrastructure, and equipment necessary for production at the highest level.

We call our Taiwan factory the “little brother.” It contains four 500-liter bioreactors. The “big brother” is under construction in Wuhan, China: there, we will have four 2000-liter bioreactors. As I mentioned, it will be the largest facility of its kind in the world. The engineers and scientists that are working at these sites will not know the difference between the two—the control systems will be the same, the processing will be the same, the quality standards will be the same, and the training will be the same.

This is high-tech manufacturing controlled from a center of excellence. Our software will be web-based for our control processes. We can observe the performance of the Chinese factory—every batch—from our office in Hsinchu, Taiwan. We will never have any surprises regarding the quality or outcomes of our work across the strait. As a matter of fact—and this was Rose’s idea—we have already hired people in China, and next month they are coming to work side-by-side with our Taiwanese staff to prepare themselves for the launch of the Wuhan factory.

We spoke earlier of cost. On that point, we should note that a typical biopharma factory has three major processes: the production process; cleaning, which is just as complex; and sterilization, which too involves thousands of steps! Typically, the probability of success for each step is about 95 percent. Since the steps are interdependent, the overall probability of success becomes 85.7 percent. However, thanks to our single-use technology, we have been able to eliminate two out of three processes: cleaning and sterilization. That means we are sitting at 95 percent. We are fortunate to be working together on these ideas with General Electric (GE).

So this is where we are positioned today. As with Alkermes, our own products will be next. Our first goal is to bring income to the company via contract manufacturing—either straightforward fee-for-service or collaboration. Our second goal will be to capitalize on our work on biosimilars, and the third will be our own molecules. This is why we managed to get our investment so quickly: we have

a short-, medium-, and long-term plan.

Do you see any major competitors for JHL?

RJ: There are certainly a number of companies out there that we will have to compete with. I can think of one particular competitor in China. But as far as I see, they lack our three pillars, and they are unwilling to share their technology—because they are not certain they can protect it. This company will always be a foreigner in China.

JHL, on the other hand, is not a foreign company in China. We have a wholly-owned foreign enterprise in Wuhan, but we also have a joint venture with the Biolake industrial park, with Biolake holding majority ownership. This is a truly domestic company, with full access to government support. Because it can lobby for state grants, the joint venture—and here I should thank our high-caliber investors for the idea—will provide financial support for the manufacturing company. Unlike our competitors, we will always look to be a local company: whether in Malaysia, Indonesia, Vietnam, or elsewhere in South East Asia.

Speaking of our government ties, another of the reasons we have been so fast is the fact that the Swedish export bank has financed much of the equipment we're setting up in China. Currently, the Swedish government is looking to stimulate exports to Asia to improve their trade balance. Leveraging these kinds of opportunities is something we always look to do well!

The number of different international resources and stakeholders that have come together to make this business a reality is truly remarkable. Is this a model the biotech industry could implement more often in incubating SMEs?

RJ: We were recently invited to speak at Bio Business Asia 2013 to touch on that very subject. We spoke about new models for biopharmaceutical companies in Asia. Our model, as well as the models of Taiwan Liposome Company (TLC) and Waterstone Pharmaceuticals, were presented as viable new approaches to the Asian market.

As we began to discuss, Big Pharma is taking the wrong path in this region. They have tried to lobby the government to restrict innovation by forcing companies to fix their processes very early in the development stage. Moreover, in a country like China, some companies don't want their drugs on the reimbursement list, because they can profit more from self-payers!

What is your principal challenge today?

RL: The challenge is on the talent side. Again—Taiwan is a bit behind. Many experts here are not used to world-class standards. They are not used to true CGMP. I have looked to impart this knowledge on our people, and I ensure that everyone that joins our company goes through GMP training, starting with the basics. We have to have that culture on our minds all the time, and in everything we do. We cannot cut any corners.

RJ: I agree—finding the right talent is our greatest challenge. The biggest asset of this company goes home every night in tennis shoes!

Another challenge is ensuring that we do not overextend ourselves. We have to be very careful about this point. There is always pressure from investors for companies to grow—to take on more contracts, increase capitalization, etc. This way, the investors can find a good exit. However, if we promise too much, we will stretch ourselves so far that we will not be able to succeed.

I have told our people: we will put a new product into development every three months, and no more.

RL: Actually, that's already pretty aggressive!

Where do you picture yourself sitting in five years?

RJ: We will probably be sitting in a small office in another country; somewhere where we are building another planet in our solar system. The office won't be very fancy—but it will have 20 million USD worth of equipment in it, and great people.

How will you raise additional capital?

RJ: We are definitely going to need more money, and we are considering a variety of funding options. Given the evolving nature of JHL, we will have more details to share at a later date.

We will consider this issue very carefully with our current investors. And again, we have excellent investors. When you're playing tennis, you always want to play with someone better than yourself—otherwise you don't learn anything!

Our goal is affordable medicines. We will do whatever it takes to realize this goal.

Ms. Lin, you earlier mentioned that you could have let your talents stay buried in California—but instead you wanted to help the next generation. Can you both speak a bit more about your personal motivations for building this company?

RL: I am a single mother with three daughters. In 1987, at 40 years old, I started my first career, at Genentech. Things have not been easy!

And yet, when I established myself at Genentech, I wanted to help. Many people have not been as fortunate as I have been. When I retired in 2006, I started a charity called TLC. In the next year, I met Racho, and asked him to join us as a board member. We started helping kids in South Asia, China, Africa, and Bulgaria to get a better education.

On a personal level, I feel that I am wealthy—I have a lot of knowledge! I want to offer it to kids in Taiwan that can really use it. A Tsinghua University post-doc recently asked us for a job, saying that he could help us solve any problem. But when I brought him to our lab, he told me he felt like an apprentice! I see that in Taiwan, there is a knowledge gap between our educational system and the industry. I want to help bridge that gap. That is my passion and my dream.

Our people, too, have a great passion for this company. Racho and I always tell them that one day soon, we will exit the business, and it will become theirs. In fact, it is theirs already, because we have given our employees founder shares.

RJ: For me, it all goes back to helping people—especially people that cannot afford medicine. I was asked once, when I went to direct an operation for Roche in Singapore, if I was a millionaire. My answer was yes, I was a millionaire: I had helped cure more than a million people of cancer! I measure our success by the number of people that we can reach.

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